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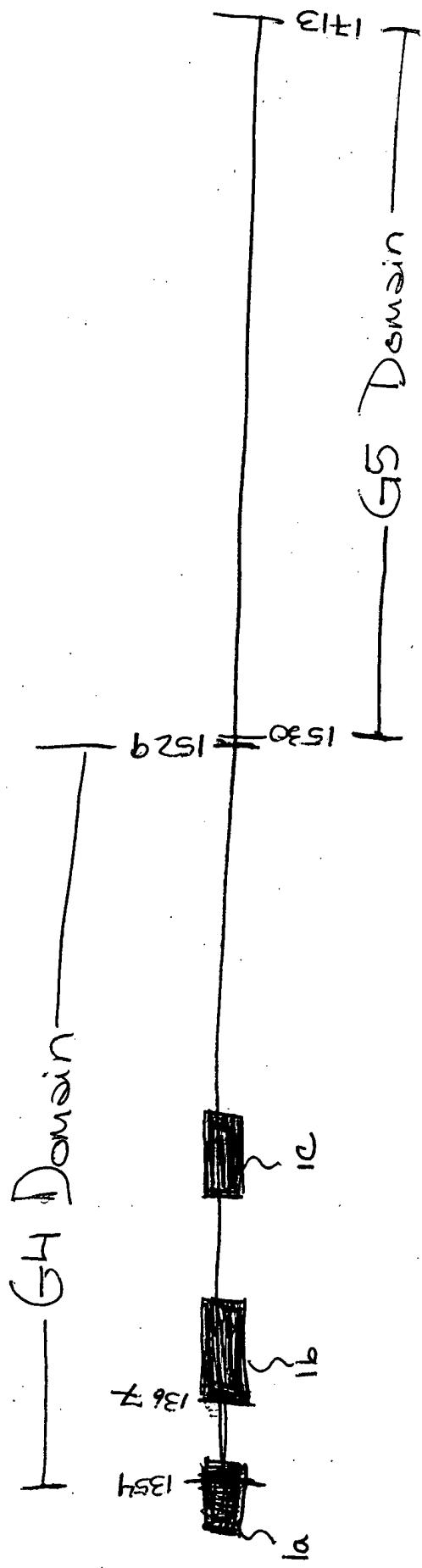


FIG. 1A

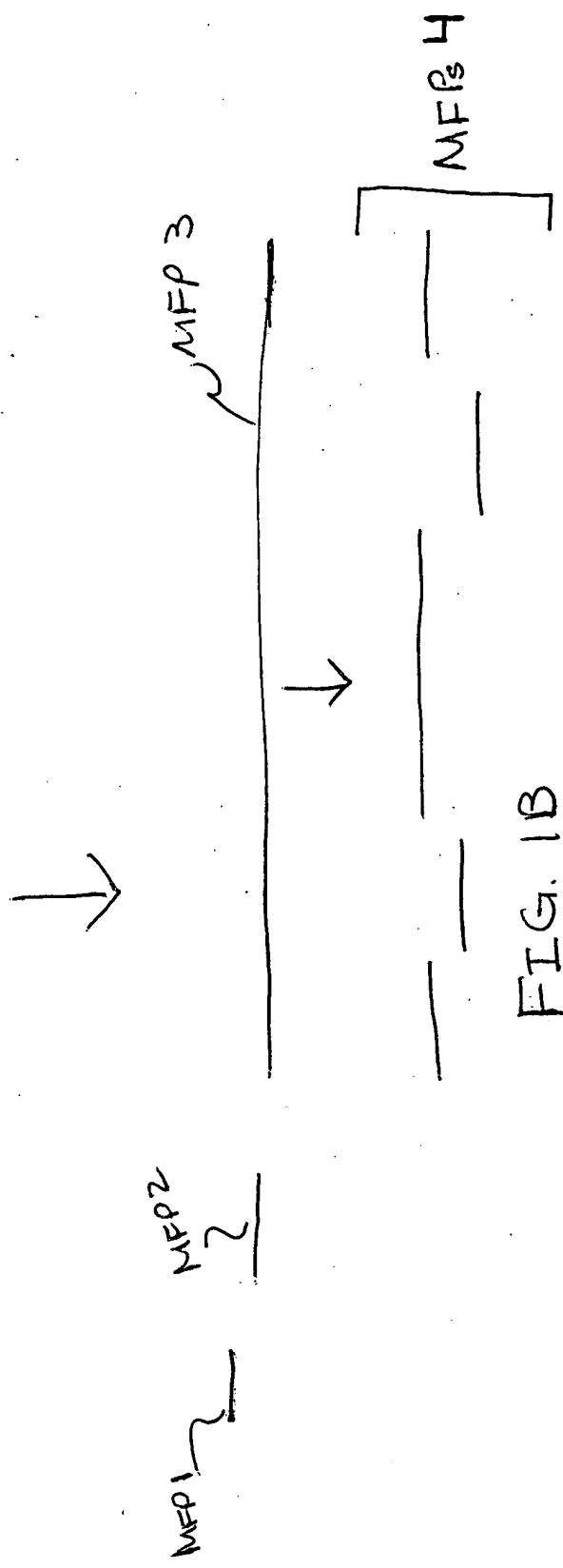
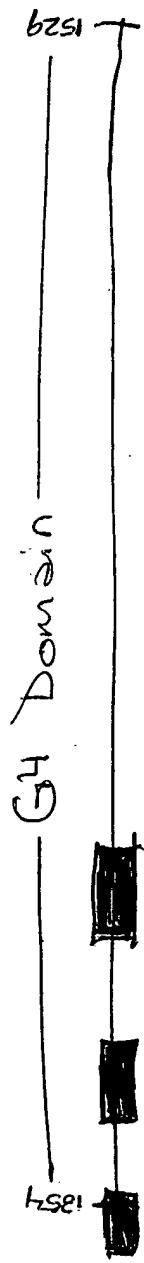


FIG. 1B

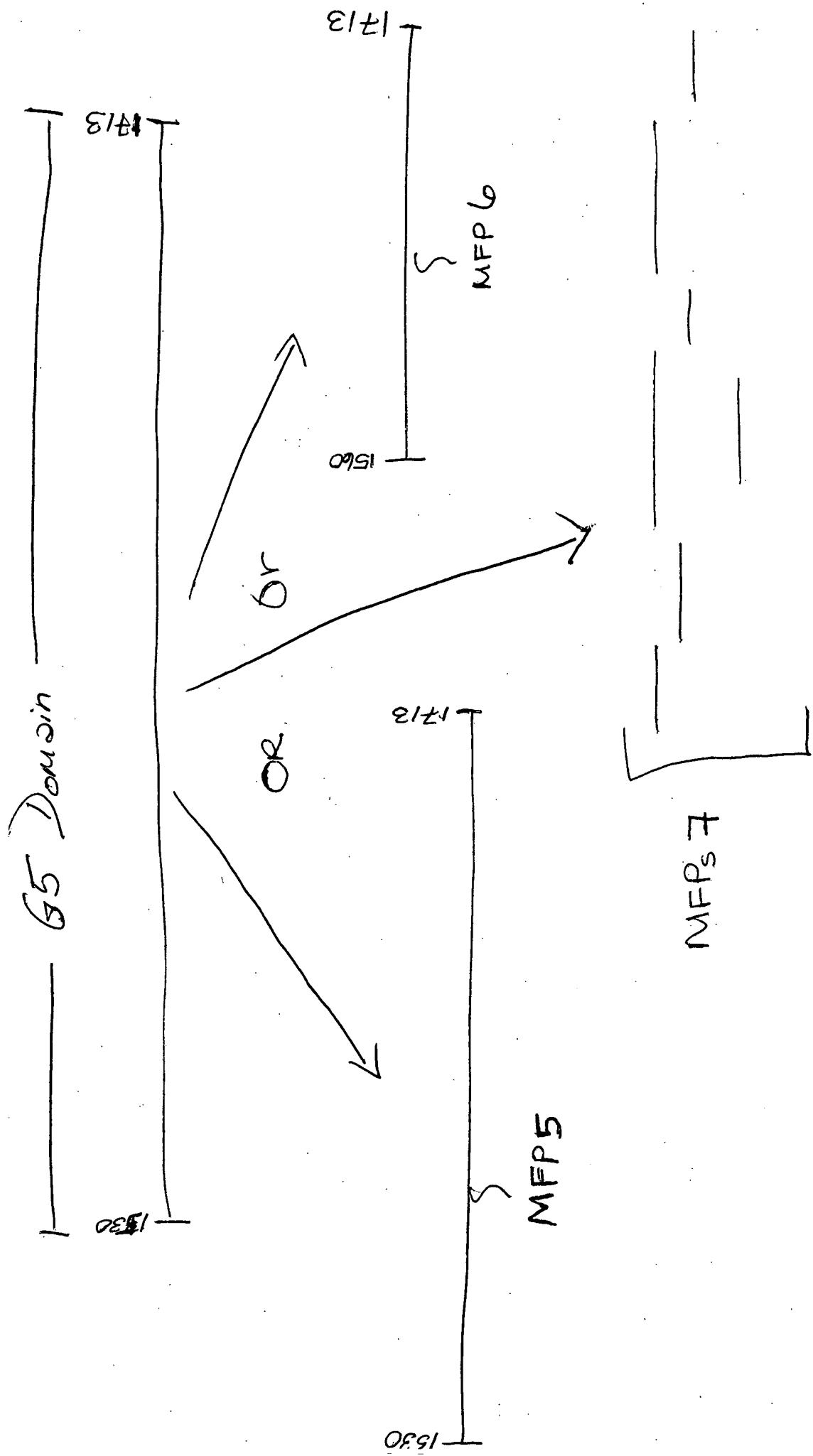
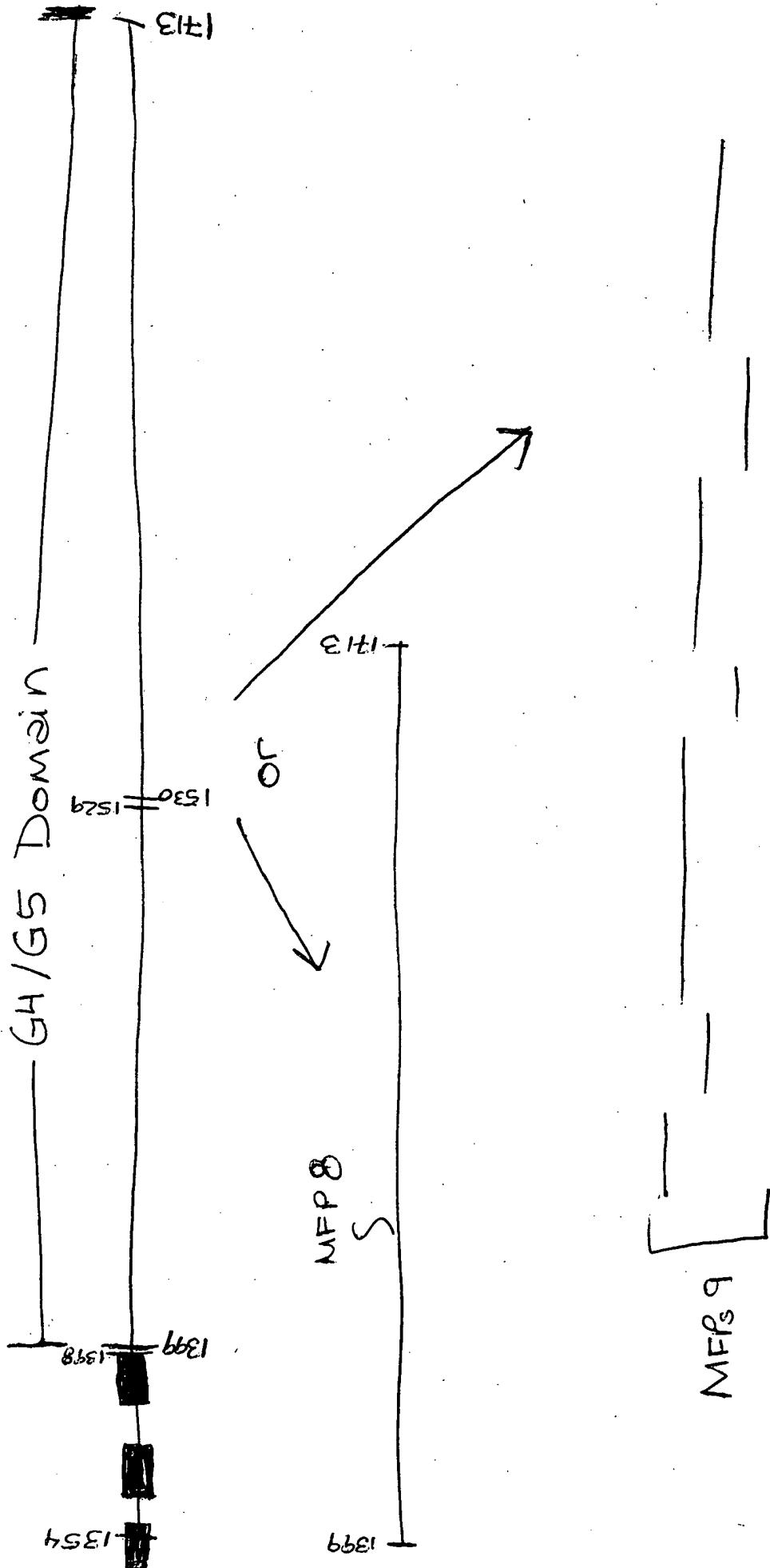


FIG. 1C



THE D

**FIG. 2A**

1 atggatggc tgtggatctt tggggcagcc ctggggcagt gtctggcta  
cagttcacag  
61 cagcaaaggg tgccatttct tcagcctccc ggtcaaagtc aactgcaagc  
gagttatgtg  
121 gagtttagac ccagccaggg ttgttagccct ggatactatc gggatcataa  
aggcttgtat  
181 accggacggt gtgtccctg caattgcaac ggacattcaa atcaatgcca  
ggatggctca  
241 ggcatatgtg ttaactgtca gcacaacacc gcgggagagc actgtgaacg  
ctgccaggag  
301 ggctactatg gcaacgcccgt ccacggatcc tgcagggcct gccccatgtcc  
tcacactaac  
361 agcttgcca ctggctgtgt ggtgaatggg ggagacgtgc ggtgctcctg  
caaagctggg  
421 tacacaggaa cacagtgtga aagggtgtca cggggatatt tcgggaatcc  
ccagaaattc  
481 ggaggttagct gccaaccatg cagttgtaac agcaatggcc agctggcag  
ctgtcatccc  
541 ctgactggag actgcataaa ccaagaaccc aaagatagca gccctgcaga  
agaatgtgat  
601 gattgcgaca gctgtgtat gaccctcctg aacgacctgg ccaccatggg  
cgagcagctc  
661 cgcctggta agtctcagct gcagggcctg agtgcagcg cagggcttct  
ggagcagatg  
721 aggcacatgg agacccaggc caaggacctg aggaatcagt tgctcaacta  
ccgttctgcc  
781 atttcaaatc atggatcaaa aatagaaggc ctggaaagag aactgactga  
tttgaatcaa  
841 gaatttgaga ctttgcaga aaaggctaa gtaaattcca gaaaagcaca  
aacattaaac  
901 aacaatgtta atcgggcaac acaaagcgca aaagaactgg atgtgaagat  
taaaaatgtc  
961 atccggaatg tgcacattct tttaaagcag atctctggga cagatggaga  
gggaaacaac  
1021 gtgccttcag gtgactttc cagagagtgg gctgaagccc agcgcatgat  
gagggactg  
1081 cggaacagga actttggaaa gcacctcaga gaagcagaag ctgataaaag  
ggagtcgcag  
1141 ctcttgctga accggataag gacctggcag aaaacccacc agggggagaa  
caatgggtt  
1201 gctaacagta tccgggattc tttaaatgaa tacgaagcca aactcagtga  
ccttcgtgct  
1261 cggctgcagg aggcagctgc ccaaggccaag caggcaaatg gcttgaacca  
agaaaacgag

FIG. 2A (CONT)

1321 agagcttgg gagcattca gagacaagtg aaagaaaataa attccctgca  
gagtgattc  
1381 accaagtatc taaccactgc agactcatct ttgttgcaaa ccaacattgc  
gctgcagctg  
1441 atggagaaaa gccagaagga atatgaaaaa ttagctgcca gtttaatga  
agcaagacaa  
1501 gaactaagtg acaaagtaag agaactttcc agatctgctg gcaaaacatc  
ccttgtggag  
1561 gaggcagaaa agcacgcgc gtccttacaa gagctggcaa agcagctgga  
agagatcaag  
1621 agaaacgcca gcggggatga gctggcgc tgcgtgtgg atgccgccac  
cgccctacgag  
1681 aacatcctca atgccatcaa agcggccgag gacgcagcca acagggctgc  
cagtgcatct  
1741 gaatctgccc tccagacagt gataaaggaa gatctgcca gaaaagctaa  
aaccctgagt  
1801 tccaacagtg ataaaactgtt aaatgaagcc aagatgacac aaaagaagct  
aaagcaagaa  
1861 gtcagtccag ctctcaacaa cctacagcaa accctgaata ttgtgacagt  
tcagaaagaa  
1921 gtgatagaca ccaatctcac aactctccga gatggcttc atggataca  
gagaggtgat  
1981 attgatgcta tgatcagtag tgcaaagagc atggtcagaa aggccaacga  
catcacagat  
2041 gaggttctgg atgggctcaa ccccatccag acagatgtgg aaagaattaa  
ggacacctat  
2101 gggaggacac agaacgaaga cttcaaaaag gctctgactg atgcagataa  
ctcggtaat  
2161 aagttaacca acaaactacc tgatcttgg cgcaagattt aagttatcaa  
ccaaacagctg  
2221 ttgcccttgg gaaacatctc tgacaacatg gacagaatac gagaactaat  
tcagcaggcc  
2281 agagatgctg ccagtaaggt tgctgtcccc atgagggtca atggtaaatc  
tggagtgc  
2341 gtccgactgc caaatgaccc ggaagattt aaaggatata catctctgca  
cttgggttctc  
2401 caaaggccca actcaagaga aaatgggggt actgagaata tgtttgtat  
gtaccttgg  
2461 aataaagatg cttccggga ctacatggc atggcagttg tggatggcca  
gctcacctgt  
2521 gtctacaacc tgggggaccg tgaggctgaa ctccaagtgg accagatctt  
gaccaagagt  
2581 gagactaagg aggtagttt ggtatcgggtg aaatttcaga gaatttatca  
gtttgcaagg

FIG. 2A (CONT)

2641 cttaattaca ccaaaggagc cacatccagt aaaccagaaa caccggagt  
ctatgacatg  
2701 gatggtagaa atagcaatac actccttaat ttggatcctg aaaatgttgt  
attttatgtt  
2761 ggagggttacc cacctgattt taaacttccc agtcgactaa gttccctcc  
atacaaaggat  
2821 tgtattgaat tagatgacct caatgaaaat gttctgagct tgtacaactt  
caaaaaaaaaaca  
2881 ttcaatctca acacaactga agtggagcct tgtagaagga ggaaggaaga  
gtcagacaaa  
2941 aattatttt aaggtacggg ctatgctga gttccaactc aaccacatgc  
tcccatccca  
3001 acctttggac agacaattca gaccaccgtg gatagaggct tgctgttctt  
tgcatggaaaac  
3061 ggggatcgct tcataatctct aaatatagaa gatggcaagc tcattggtag  
atacaaactg  
3121 aattcagagc taccaaaaga gagaggagtt ggagacgcca taaacaacgg  
cagagaccat  
3181 tcgattcaga tcaaaattgg aaaactccaa aagcgtatgt ggataaatgt  
ggacgttcaa  
3241 aacactataa ttgatggtga agtattttagt ttcagcacat attatctggg  
aggaattcca  
3301 attgcaatca gggaaagatt taacatttct acgcctgctt tccgaggctg  
catgaaaaat  
3361 ttgaagaaaa ccagtggtgt cgtagattt aatgataactg tgggagtaac  
caaaaaagtgc  
3421 tcggaagact ggaagcttgcgatctgcc tcattctcca gaggaggaca  
atttagtttc  
3481 actgatttgg gcttaccacc tactgaccac ctccaggcct cattggatt  
tcagacctt  
3541 caacccagtgc gcatatttatt agatcatcag acatggacaa ggaacctgca  
ggtcactctg  
3601 gaagatggtt acattgaatt gagcaccagc gatagcggcg gcccaatttt  
taaatctcca  
3661 cagacgtata tggatggttt actgcattat gtatctgtaa taagcgacaa  
ctctggacta  
3721 cggcttctca tcgatgacca gcttctgaga aatagcaaaa ggctaaaaca  
catttcaagt  
3781 tccccggcgt ctctgcgtct gggcgggagc aattttggg gttgtatttag  
caatgtttt  
3841 gtccagaggt tatcaactgag tcctgaagtc ctagatttga ccagtaactc  
tctcaagaga  
3901 gatgtgtccc tgggaggctg cagttaaac aaaccacctt ttctaatgtt  
gcttaaaggat

FIG. 2A (CONT)

3961 tctaccaggt ttaacaagac caagacttt cgtatcaacc agctgttgc  
ggacacacca  
4021 gtggcctccc caaggagcgt gaagggtgtgg caagatgctt gctcaccact  
tcccaagacc  
4081 caggccaatc atggagccct ccagttggg gacattccca ccagccactt  
gctattcaag  
4141 cttcctcagg agctgctgaa acccaggtca cagttgctg tggacatgca  
gacaacatcc  
4201 tccagaggac tgggtttca cacgggcact aagaactcct ttatggctct  
ttatcttca  
4261 aaaggacgtc tggctttgc actggggaca gatggaaaaa aattgaggat  
caaaagcaag  
4321 gagaaatgca atgatggaa atggcacacg gtgggtttg gccatgatgg  
ggaaaagggg  
4381 cgcttggttg tggatggact gagggcccg gagggaagtt tgcctggaaa  
ctccaccatc  
4441 agcatcagag cgccagttt cctggatca cctccatcag ggaaacccaa  
gagcctcccc  
4501 acaaacagct ttgtggatg cctgaagaac tttcagctgg attcaaaacc  
cttgtataacc  
4561 ctttcttcaa gttcgggt gtcttctgc ttgggtggc ctttggagaa  
aggcatttat  
4621 ttctctgaag aaggaggtca tgtcgtctt gctcactctg tattgttgg  
gccagaattt  
4681 aagcttgttt tcagcatccg cccaagaagt ctcactggga tcctaataca  
catcggaaagt  
4741 cagcccgga agcacttatg ttttacctg gaggcagggaa aggtcacggc  
ctctatggac  
4801 agtggggcag gtggacctc aacgtcggtc acaccaaagc agtctctgt  
tgatggacag  
4861 tggcactcg tggcagtcac cataaaacaa cacatcctgc acctggaaact  
ggacacagac  
4921 agtagctaca cagctggaca gatccccttc ccacctgcca gcactcaaga  
gccactacac  
4981 cttggaggtg ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa  
atcattctt  
5041 ggctgtctga ggaatattca tgtcaatcac atccctgtcc ctgtcactga  
agccttggaa  
5101 gtccaggggc ctgtcagtct gaatgggtgt cctgaccagt aacccaagcc  
tatttcacag  
5161 caaggaaatt caccttcaaa agcactgatt acccaatgca cttccctccc  
cagctcgaga  
5221 tcattcttca attaggacac aaaccagaca ggttaatag cgaatctaatt  
tttgaattct

**FIG. 2A (CONT)**

5281 gaccatggat acccatcaact ttggcattca gtgctacatg tgtatTTTat  
ataaaaaatcc  
5341 catttcttga agataaaaaa attgttattc aaattgttat gcacagaatg  
tttttggtaa  
5401 tattaatttc cactaaaaaa ttaaatgtct ttt

**FIG. 2B**

MGWLWIFGAALGQCLGYSSQQQRVPFLQPPGQSQLQASYVEFRP  
SQGCSPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTAGEHCERCQEGY  
YGNNAVHGSCRACPCPHTNSFATGCVVNGGDVRCSCKAGYTGTQCERCAPGYFGNPQKF  
GGSCQPCSCNSNGQLGSCHPLTGDCINQEPKDSSPAEECDDCDSCVMTLLNDLATMGE  
QLRLVKSQQLQGLSASAGLLEQMRHMETQAKDLRNQLLNYRSAISNHGSKIEGLERELT  
DLNQEFEQLQEKAQVNSRKAQTLNNNVN RATQSAKELDVKIKNVIRNVHILLKQISGT  
DGEGNVPSGDFSREWAEAQRMMRELNRNFGKHLREAEADKRESQLLN RIRTWQKT  
HQGENNGLANSIRDSDLNEYEAKLSDLRARLQEAAQAKQANGLNQENERALGAIQRQV  
KEINSLQSDFTKYLTTADSSLQTNIALQLMEKSQKEYEKL AASLNEARQELSDKVRE  
LSRSAGKTSVLVEEAKHARSLQELAKQLEEIKRNASGDELVRCAVDAATAYENILNAI  
KAAEDAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMTQKKLKQEVS  
PA  
LNNLQQTLNIVTVQKEVIDTNLTLRDGLHGIQRGDIDAMISSAKSMVRKANDITDEV  
LDGLNPIQTDVERIKDTYGRQNEDFKKALT DADNSVNKL TNKLPDLWRKIESINQQL  
LPLGNISDNMDRIRELIQQARDAAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYTS  
LFLQRPNSEN GGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLGDR  
EAEQVDQI  
LTKSETKEAVMDRVKFQRIYQFARLN YTKGATSSK PETPGVYDMDGRNSNTLLNLDPE  
NVVFYVGGYPPDFKLPSRLSFPPYKG CIELDDLNENVLSLYNFKKTFNLNTTEVEPCR  
RRKEESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDRGLLFFAENGDRFISLNIE  
DGKLMVRYKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINVDVQNTI IDGEV

FIG. 2B (CONT)

FDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTGVVRLNDTVGVTKKCSEDWKL  
VRSASFSSRGQQLSFTDLGLPPTDHLQASFGQTFQPSGILLDHQTVTRNLQVTLEDGY  
IELSTSDDGGPIFKSPQTYMDGLLHYVSVISDNGLRLLIIDDQLLRNSKRLKHISSSR  
QSLRLGGSNFEGCISNVFVQRLSLSPEVLDLTSNSLKRDVSLGGCSLNKPPFLMLKG  
STRFNKTKTFRINQLLQDTPVASPRSVKVWQDACSPLPKTQANHGALQFGDIPTSHLL  
FKLPQELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMALYLSKGRLVFALGTDGKKLR  
IKSKEKCNDGKWHTVVFGHDGEKGRLLVVDGLRAREGSLPGNSTISIRAPVYLGSPPSG  
KPKSLPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEGGHVVLAH  
SVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLCVYLEAGKVTASMDSGAGGTSTSV  
TPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPASTQEPLHLGGAPANL  
TTLRIPVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

FIG. 2C

1 gcaggtccgg gaggcgcagg cggagagcgg cggcgtcccc  
gagccctct gcccacggct  
61 caggcgggag gaccccgccg ggctggatgg cggcggccgc gcggcctcgg  
ggtcgggcac  
121 tggggccagt actgccgccc acgccgctgc tcctgctggc actgcgggtg  
ctgccagcct  
181 gcggggcgac cgctcgggat cccggggccg cggccgggct cagccttcac  
ccgacttact  
241 tcaacctggc cgaggcggcg aggatttggg ccaccgccac ctgcggggag  
aggggacccg  
301 gcgaggggag gcccagccc gagctctact gcaagttggc cggggggccc  
accggcccg  
361 gcagcggcca caccatccag ggccagttct gtgactattg caattctgaa  
gaccccg  
421 aagcacatcc tgtcaccaat gccatcgatg gatctgaacg ttgggtggcaa  
agccctcccc  
481 tgtcctcagg cacacagtac aacagagtca acctcacctt ggatctgggg  
cagctttcc

FIG. 2C (CONT)

541 atgtggccta tatttaatc aaatttgcaa atttcctcg ccctgatctt  
tgggtcttgg  
601 aaagatctgt agactttgga agcacctact caccatggca atatttgct  
cattctaaag  
661 tagactgttt aaaagaattt gggcgggagg caaatatggc tgtcacccgg  
gatgatgatg  
721 tactttgtgt tactgaatat tcccgattt tacctttgga aaatggtag  
gttgggtgt  
781 ccttgataaa cggtcgtcca ggtgaaaaaa atttacttt ctctcacacc  
ctgagggagt  
841 ttaccaaggc aacaaacatc cgcttgcgtt ttcttagaac caatacgctt  
cttggacacc  
901 tcatctccaa agcccagcga gatccaactg tcactcggcg gtattattac  
agcataaaagg  
961 acatcagcat tggggcag tggtttgca atggccatgc tgaagtgtgc  
aatataaaaca  
1021 atcctgaaaaa actgtttcg tggatgcc agcaccacac ctgtggggag  
acgtgtgatc  
1081 gctgctgcac aggtacaat cagagggcgtt ggccggccgc cgcttggag  
cagagccacg  
1141 agtgtgaagc atgcaactgc cacggccatg ccagcaactg ttactatgat  
ccagatgttg  
1201 agcggcagca ggcaagctt aataccagg gcatctatgc tggggaggg  
gtctgcatta  
1261 actgtcagca caacacagct ggagtaaact gtgaacagtgc tgctaaaggc  
tattaccggc  
1321 cttatgggt tccagtggat gcccctgatg gctgcatccc ctgcagctgt  
gaccctgagc  
1381 atgcggatgg ctgtgaacag gttcaggcc gctgtcactg caagccaaat  
ttccacggag  
1441 acaactgtga gaagtgtgc attggataact acaatttccc atttgcttg  
agaattccca  
1501 ttttcctgt ttctacacca agttcagaag atccagtagc tggagatata  
aaagggtgtg  
1561 actgtaatct ggaaggtgtt ctccctgaaa tatgtatgc ccacggacgg  
tgccctgtgcc  
1621 gccctgggt tgagggccct cgatgtgata cctgccgctc tggttctac  
tcattcccta  
1681 tttgccaagc ctgctgggt tcagccctt gatcctacca gatgccctgc  
agctcagtga  
1741 ctggacagtg tgaatgtcg ccaggagttt caggacagcg gtgtgacagg  
tgtctctcag  
1801 gagcttatga tttccccac tgccaaagggtt ccagcagtgc ttgtgacccca  
gtggatcca

FIG. 2C (CONT)

1861 tcaactccaa tttgggtat tgccaatgca agttcatgt tgaaggcct  
actttagcc  
1921 gctcaaaact gttatattgg aatctggaca aagaaaaaccc cagtggatgt  
tcagaatgca  
1981 agtgcataa ggcggaca gtgagtgaa ctggagagt taggcaggaa  
gatgggtact  
2041 gtcactgcaa gtcccatgtg ggtggcgatt cctgcgacac ctgtgaagat  
ggatatttg  
2101 ctttggaaaa gagcaattac tttgggtgtc aagggtgtca gtgtgacatt  
ggtggggcat  
2161 tgtcctccat gtgcagtggg ccctcggag tgtgccagtg ccgagagcat  
gtcgtggaa  
2221 aggtgtgcca gcggcctgaa aacaactact atttcccaga tttgcatcat  
atgaagtatg  
2281 agattgaaga cggcagcaca cctaattggg gagaccttcg atttggattt  
gatccgctgg  
2341 catttcctga gtttagctgg agaggatatg cccaaatgac ctcagtacag  
aatgatgtaa  
2401 gaataacatt gaatgttaggg aagtcaagtg gtccttgc tcgtgttatt  
ctgagatacg  
2461 ttaaccctgg aactgaagca gatatctggcc atataactat ttatccatcc  
tggggtgctg  
2521 ctcaaagcaa agagatcatc ttccctgcccga gtaaggagcc agcctttgtc  
actgtccctg  
2581 gaaatggttt tgcagaccca ttttcaatca caccaggaat atgggttgct  
tgtattaagg  
2641 cagaaggagt cttctggat tacctgggtgc tgctccccag ggactactat  
gaaggcctctg  
2701 tactgcagct gccagtcaca gaaccatgtg cctacgcagg acctccccaa  
gaaaattgct  
2761 tactctacca gcatttgcca gtgaccagat tcccctgtac cctggcttgt  
gaggccagac  
2821 acttcctgct tggatgggag ccaagacccg tggcagttag gcaagccaca  
cctgcacacc  
2881 ctgtcatggt ggacctcagc gggagagagg tggaaattgca tctgcggctg  
cgcatcccac  
2941 aggttggcca ctacgtggtt gtggtcgagt attccacgga ggcagctcag  
ctgtttgtgg  
3001 ttgatgtgaa tgtgaagagc tccgggtctg ttctggcagg ccaggtgaac  
atttacagct  
3061 gcaactacag tttctctgc cggagtgctg tgattgatca catgagccgc  
atcgccatgt  
3121 atgagctatt ggcagatgca gacattcagc tcaaggacca catggcccgaa  
ttccttctgc

FIG. 2C (CONT)

3181 atcaagtttgc tatcatacctt attgaagaat tctcagctgat gtatgtgaga  
ccacaagtcc  
3241 actgcattgc cagttatgggg cgatttgcata atcaaagtgc cacctgtgtc  
tccttggccc  
3301 atgaaaactcc tccaaacagca ttaattttgg atgttctaag tggcaggcct  
ttccctcacc  
3361 tgccccagca gtcgtcacct tctgttgatg ttcttcctgg ggtcaccttg  
aaggcaccgc  
3421 agaatcaagt gaccctgaga ggacgtgtac cacacctgggg ccgataacgtc  
tttgcattcc  
3481 atttttacca agcagcgcac ccgacgtttc ccgcgcaggt gtcgggtggat  
ggcgggtggc  
3541 cacgggcagg ctccttccat gcctctttt gccccatgt gcttggctgc  
cgggatcaag  
3601 tgattgccga aggccagatt gagtttgaca tctcagagcc tgaagtggcc  
gcaactgtga  
3661 aggttccaga aggaaagtcc ttgggtttgg tccgtgttct agtgggtgcct  
gcagaaaaact  
3721 atgactacca aataacttcac aaaaaatcca tggacaagtc actcgagttt  
atcaccatt  
3781 gtggaaaaaaa cagcttttac cttgacccccc agacagcctc cagattctgt  
aagaattccg  
3841 ccaggtccct ggtggccttt taccacaagg gcgcctgccc ttgtgagtg  
cacccttactg  
3901 gggccaccgg ccctcactgc agccctgagg gtgggcagtg cccatgccag  
cccaacgtca  
3961 tcggggcggca gtgcacccgc tgtgcaacag gccactacgg attccacgc  
tgcaagccgt  
4021 gcagctgtgg tcggcgccctt tgtgaagaga tgacggggca gtgccgctgc  
cctcccccga  
4081 cggtcaggcc ccagtgtgag gtgtgtgaga cacactcatt cagcttccac  
cccatggccg  
4141 gctgcgaagg ctgcaactgt tccaggaggg gcaccatcga ggctgccatg  
ccggagtgtg  
4201 accgggacag cgggcagtgc agatgcaagc ccagaatcac agggcggcag  
tgtgaccgat  
4261 gtgcttccgg gtttaccgc tttcctgagt gtgtccctg caattgcaac  
agagatggga  
4321 ctgagccagg agtgtgtgac ccagggaccg gggcttgcct ctgcaaggaa  
aatgtagaag  
4381 gcacagagtg taatgtgtgt cgagaaggct cattccattt ggacccagcc  
aatctcaagg  
4441 gttgtaccag ctgtttctgt tttggagtaa ataatcaatg tcacagctca  
cataagcgaa

FIG. 2C (CONT)

4501 ggactaagtt tgtggatatg ctgggctggc acctggagac agcagacaga  
gtggacatcc  
4561 ctgtctctt caacccaggc agcaacagta tggtggcgga tctccaggag  
ctgcccgc当地  
4621 ccatccacag cgcgctctgg gtcgcaccca ctccttaccc gggggacaag  
gtttcttcat  
4681 atgggtgtta ctcacttac caagccaagt ctttggctt gcctggcgac  
atgggtcttc  
4741 tggaaaagaa gccggatgta cagctcactg gtcagcacat gtccatcatc  
tatgaggaga  
4801 caaacacccc acggccagac cggctgcatac atggacgagt gcacgtggtc  
gagggaaact  
4861 tcagacatgc cagcagccgt gccccagtgt ctagggagga gctgatgaca  
gtgctgtcta  
4921 gactggcaga tgtgcgcatac caaggcctct acttcacaga gactcaaagg  
ctcaccctga  
4981 gcgaggtggg gctagaggaa gcctctgaca caggaagtgg gcgcatacgca  
cttgctgtgg  
5041 aaatctgtgc ctgccccct gcctacgctg gtgactcttg tcagggttgt  
agccctggat  
5101 actatcgga tcataaaggc ttgtataaccg gacggtgtgt tccctgcaat  
tgcaacggac  
5161 attcaaatca atgcccaggat ggctcaggca tatgtgttaa ctgtcagcac  
aacaccgc当地  
5221 gagagcactg tgaacgctgc caggaggct actatggcaa cgccgtccac  
ggatcctgca  
5281 gggcctgccc atgtcctcac actaacagct ttgccactgg ctgtgtggtg  
aatgggggag  
5341 acgtgcggtg ctccctgaaa gctgggtaca caggaacaca gtgtgaaagg  
tgtgcaccgg  
5401 gatatttcgg gaatccccag aaattcggag gtagctgcca accatgcagt  
tgtaacagca  
5461 atggccagct gggcagctgt catccccctga ctggagactg cataaacc  
gaacccaaag  
5521 atagcagccc tgcagaagaa tgtgatgatt ggcacagctg tgtgatgacc  
ctcctgaaacg  
5581 acctggccac catgggc当地 cagctccgccc tggtaagtc tcagctgc当地  
ggcctgagtg  
5641 ccagcgc当地 gcttctggag cagatgaggc acatggagac ccaggccaaag  
gacctgagga  
5701 atcagttgct caactaccgt tctgccattt caaatcatgg atcaaaaata  
gaaggcctgg  
5761 aaagagaact gactgattt gatcaagaat ttgagacttt gcaagaaaag  
gctcaagtaa

FIG. 2C (CONT)

5821 attccagaaa agcacaaaca ttaaacaaca atgttaatcg ggcaacacaa  
agcgaaaaag  
5881 aactggatgt gaagattaaa aatgtcatcc ggaatgtgca cattcttta  
aagcagatct  
5941 ctggacaga tggagaggga aacaacgtgc cttaggtga cttttccaga  
gagtgggctg  
6001 aagcccagcg catgatgagg gaactgcgg aacaggaactt tggaaagcac  
ctcagagaag  
6061 cagaagctga taaaagggag tcgcagctct tgctgaaccg gataaggacc  
tggcagaaaa  
6121 cccaccaggg ggagaacaat gggcttgcta acagtatccg ggattcttta  
aatgaatacg  
6181 aagccaaact cagtgacctt cgtgctcggc tgcaggaggc agctgccaa  
gccaaggcagg  
6241 caaatggctt gaaccaagaa aacgagagag ctttggagc cattcagaga  
caagtgaaag  
6301 aaataaattc cctgcagagt gatttcacca agtatctaac cactgcagac  
tcatctttgt  
6361 tgcaaaccaa cattgcgctg cagctgatgg agaaaagcca gaaggaatat  
gaaaaattag  
6421 ctgccagttt aaatgaagca agacaagaac taagtgacaa agtaagagaa  
ctttccagat  
6481 ctgctggcaa aacatccctt gtggaggagg cagaaaagca cgcgcggtcc  
ttacaagagc  
6541 tggcaaagca gctggaagag atcaagagaa acgccagcgg ggatgagctg  
gtgcgctgtg  
6601 ctgtggatgc cgccaccgccc tacgagaaca tcctcaatgc catcaaagcg  
gccgaggacg  
6661 cagccaacag ggctgccagt gcatctgaat ctgcctcca gacagtgata  
aaggaagatc  
6721 tgccaaagaaa agctaaaacc ctgagttcca acagtgataa actgttaat  
gaagccaaga  
6781 tgacacaaaaa gaagctaaag caagaagtca gtccagctct caacaaccta  
cagcaaacc  
6841 tgaatattgt gacagttcag aaagaagtga tagacaccaa tctcacaact  
ctccgagatg  
6901 gtcttcatgg gatacagaga ggtgatattg atgctatgtat cagtagtgca  
aagagcatgg  
6961 tcagaaaggc caacgacatc acagatgagg ttctggatgg gctcaacccc  
atccagacag  
7021 atgtggaaag aattaaggac acctatggga ggacacagaa cgaagacttc  
aaaaaggctc  
7081 tgactgatgc agataactcg gtgaataagt taaccaacaa actacctgat  
cttggcgca

FIG. 2C (CONT)

7141 agattgaaag tatcaaccaa cagctgtgc ccttggaaa catctctgac  
aacatggaca  
7201 gaatacgaga actaattcag caggccagag atgctgccag taaggttgct  
gtccccatga  
7261 gttcaatgg taaatctgga gtcgaagtcc gactgccaaa tgacctggaa  
gatttcaaag  
7321 gatatacatc tctgtccttg tttctccaaa ggcccaactc aagagaaaat  
gggggtactg  
7381 agaatatgtt tgtgatgtac cttggaaata aagatgcctc ccgggactac  
atcggcatgg  
7441 cagttgtgga tggccagctc acctgtgtct acaacctggg ggaccgtgag  
gctgaactcc  
7501 aagtggacca gatcttgacc aagagtgaga ctaaggaggc agttatggat  
cggtgaaat  
7561 ttcagagaat ttatcagttt gcaaggctta attacaccaa aggagccaca  
tccagtaaac  
7621 cagaaacacc cggagtctat gacatggatg gtagaaatag caatacactc  
cttaatttgg  
7681 atcctgaaaaa ttttttattt tatgttggag gttaccacc tgattttaaa  
cttccagtc  
7741 gactaagttt ccctccatac aaaggttgtt ttgaatttga tgacctcaat  
gaaaatgttc  
7801 tgagcttgta caacttcaaa aaaacattca atctcaacac aactgaagtg  
gagcatttgta  
7861 gaaggaggaa ggaagagtca gacaaaaattt atttgaagg tacggctat  
gctcgagttc  
7921 caactcaacc acatgctccc atcccaaccc ttggacagac aattcagacc  
accgtggata  
7981 gaggcttgct gtttttgca gaaaacgggg atcgcttcat atctctaaat  
atagaagatg  
8041 gcaagctcat ggtgagatac aaactgaattt cagagctacc aaaagagaga  
ggagttggag  
8101 acgccataaa caacggcaga gaccattcga ttcagatcaa aattggaaaa  
ctccaaaagc  
8161 gtatgtggat aaatgtggac gttcaaaaca ctataattga tggtaagta  
tttgatttca  
8221 gcacatatta tctgggagga attccaatttga caatcaggaa aagatttaac  
atttctacgc  
8281 ctgctttccg aggctgcatttga aaaaatttga agaaaaccag tgggtgcgtt  
agattgaatg  
8341 atactgtggg agtaaccaa aagtgcctgg aagactggaa gcttgcgtt  
tctgcctcat  
8401 tctccagagg aggacaatttga agtttcaactg atttggcattt accacctact  
gaccaccc

FIG. 2C (CONT)

8461 aggcctcatt tggatttcag accttcaac ccagtggcat attattagat  
catcagacat  
8521 ggacaaggaa cctgcaggc actctggaag atggttacat tgaattgagc  
accagcgata  
8581 gcggcagccc aattttaaa tctccacaga cgtatatgga tggttactg  
cattatgtat  
8641 ctgtaataag cgacaactct ggactacggc ttctcatcga tgaccagctt  
ctgagaaata  
8701 gcaaaaggct aaaacacatt tcaagttccc ggcagttct gcgtctggc  
gggagcaatt  
8761 ttgagggttg tattagcaat gttttgtcc agaggttatac actgagtcct  
gaagtcctag  
8821 atttgaccag taactctctc aagagagatg tgcctctggg aggctgcagt  
ttaaacaaac  
8881 cacctttct aatgttgctt aaaggttcta ccaggtttaa caagaccaag  
actttcgtt  
8941 tcaaccagct gttgcaggac acaccagtgg cctcccaag gagcgtgaag  
gtgtggcaag  
9001 atgcttgctc accacttccc aagacccagg ccaatcatgg agccctccag  
tttggggaca  
9061 ttcccaccag ccacttgcta ttcaagcttc ctcaggagct gctgaaaccc  
aggcacagt  
9121 ttgctgtgga catcagaca acatcctcca gaggactggt gttcacacg  
ggcactaaga  
9181 actcctttat ggctctttat cttcaaaaag gacgtctggt cttgcactg  
gggacagatg  
9241 gaaaaaaatt gaggatcaaa agcaaggaga aatgcaatga tggaaatgg  
cacacgggtgg  
9301 tttttggcca tggatggggaa aagggcgct tggttgtgga tggactgagg  
gccccgggagg  
9361 gaagtttgcc tggaaactcc accatcagca tcagagcgcc agttacctg  
ggatcacctc  
9421 catcagggaa accaaagagc ctccccacaa acagcttgc gggatgcctg  
aagaacttcc  
9481 agctggattc aaaacccttg tataccctt cttcaagctt cgggggtgtct  
tcctgcttgg  
9541 gtggtcctt ggagaaaggc atttatttct ctgaagaagg aggtcatgtc  
gtcttggctc  
9601 actctgtatt gttggggcca gaatttaagc ttgtttcag catccgccc  
agaagtctca  
9661 ctgggatcct aatacacatc ggaagtcagc ccgggaagca cttatgtgtt  
tacctggagg  
9721 cagggaaaggt cacggcctct atggacagtg gggcaggtgg gacctaacc  
tcggtcacac

FIG. 2C (CONT)

9781 caaaggcagtc tctgtgtgat ggacagtggc actcggtggc agtcaccata  
aaacaacaca  
9841 tcctgcaccc ggaactggac acagacagta gctacacagc tggacagatc  
cccttcccac  
9901 ctgccagcac tcaagagcca ctacacccctg gaggtgctcc agccaaatttg  
acgacactga  
9961 ggatccctgt gtggaaatca ttcttggct gtctgagggaa tattcatgtc  
aatcacatcc  
10021 ctgtccctgt cactgaagcc ttggaagtcc aggggcctgt cagtctgaat  
ggttgtcctg  
10081 accagtaacc caaggctatt tcacagcaag gaaattcacc ttcaaaagca  
ctgattaccc  
10141 aatgcaccc cctccccagc tcgagatcat tcttcactca ggacacaaac  
cagacaggtt  
10201 taatagcgaa tctaattttg aattctgacc atggataccca atcactttgg  
cattcagtgc  
10261 tacatgtgta ttttatataa aaatcccatt tcttgaagat aaaaaaatttg  
ttattcaaatt  
10321 tgttatgcac agaatgtttt tggttaatatt aatttccact aaaaaaattaa  
atgtctttta  
10381 agaaacattc tttccactt gttttttttt ttaaatatata tttaaagcac  
tttaagaata  
10441 tgaaactttc atatatgtta aaggattata atttatggaa tttttttttt  
cagtgtagtc  
10501 cttaaaaaaaa a

FIG. 2D

MAAAARPRGRALGPVLPPPLLVLRLVPACGATARDPGAAAG  
LSLHPTYFNLAEAARIWATATCGERGPGEGRPQPELYCKLVGGPTAPGSGHTIQGQFC  
DYCNSEDPRKAHPVTNAIDGSERWWQSPPPLSSGTQYNRVNLTLNLGQLFHVAYILIKF  
ANSPRPDWLERSVDFGSTYSPWQYFAHSKVDCLKEFGREANMAVTRDDDVLCVTEY  
SRIVPLENGEVVVSILINGRPGAKNFTFSHTLREFTKATNIRLFLRTNTLLGHLISKA  
QRDPVTRRYYYSIKDISIGGQCVNGHAEVCNINNPEKLFRCQHHTCGETCDRCC  
TGYNQRRWRPAAWEQSHECEACNCNCHGHASNCYYDPDVERQQASLNTQGIYAGGGVCIN  
CQHNTAGVNCEQCAKGYYRPYGVVDAPDGCIPCSCDPEHADGCEQGSGRCHCKPNFH

FIG. 2D (CONT)

GDNCEKCAIGYYNFPFCLRIPIFPVSTPSSEDPVAGDIKGDCDNLEGVLPEICDAHGR  
CLCRPGVEGPRCDTCRSGFYSFPICQACWCSALGSYQMPCSSVTGQCECRPGVTGQRC  
DRCLSGAYDFPHCQGSSACDPAGTINSNLGYCQCKLHVEGPTCSRCKLLYWNLDKEN  
PSGCSECKCHKAGTVSGTGECRQGDGDCHCKSHVGGDSCDTCEDGYFALEKSNYFGCQ  
GCQCDIGGALSSMCSGPGVCQCREEHVGKVCQRPENNYFPDLHHMKYEIEDGSTPN  
GRDLRFGFDPLAFPEFSWRGYAQMTSVQNDVRITLNVGKSSGSLFRVILRYVNPGETA  
VSGHITIYPSWGAAQSKEIIFLPSKEPAFVTPGNGFADPFSITPGIWACIKAEGVL  
LDYLVLLPRDYYEASVLQLPVTEPCAYAGPPQENCLLYQHLPVTRFPCTLACEARHFL  
LDGEPRPVAVRQPTPAHPVMVDLSGREVELHLRLRIPQVGHYVVVEYSTAAQLFVV  
DVNVKSSGSVLAGQVNIYSCNYSVLCRSAVIDHMSRIAMYELLADADIQLKGHMARFL  
LHQVCIIPIEEFSAEYVRPQVHCIASYGRFVNQSATCVSLAHETPPTALILDVLSGRP  
FPHLPQQSSPSVDLPGVTLKAPQNQVTLRGRVPHLGRYVFVIHFYQAAHPTFPAQVS  
VDGGWPRAGSFHASFCPHVLGCRDQVIAEGQIEFDISEPEVAATVKVPEGKSLVLVRV  
LVVPAENYDYQILHKKSDKSLEFITNCGKNSFYLDPQTASRFCKNSARSLVAFYHKG  
ALPCECHPTGATGPHCSPEGGQCPQPNVIGRQCTRCATGHYGFPRCKPCSCGRRLCE  
EMTGQCRCPRTVRPQCEVCETHSFSFHPMAGCEGCNCRRGTIEAAMPECDRDSGQC  
RCKPRITGRQCDRCASGFYRFPECVPCNCNRDGTEPGVCDPGTGACLCKENVEGTECN  
VCREGSFHLDPANLKGCTSCFCFGVNNQCHSSHKRRTKFVDMLGWHLETADRVDIPVS  
FNPGSNMVA\_DLQELPATIHSASWVAPTSYLGDKVSSYGGYLTYQAKSFGLPGDMVLL  
EKKPDVQLTGQHMSIIYEETNTPRPDRLHHGRVHVVEGNFRHASSRAPVSREELMTVL  
SRLADVRIQGLYFTETQRLTLSEVGLEEASDTGSGRIALAVEICACPPAYAGDSCQGC  
SPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTAGEHCERCQEGYYGNA

FIG. 2D (CONT)

VHGSCRACPCPHTNSFATGCVVNGGDVRCSCAGYTGTQCERCAPGYFGNPQKFGGSC  
QPCSCNSNGQLGSCHPLTGD CINQEPKDSSPAEECDDCDSCVMTLLNDLATMGEQLRL  
VKSQQLQGLSASAGLLEQMRHMETQAKDLRNQLNYRSAISNHGSKIEGLERE L TDLNQ  
EFETLQEKAQVNSRKAQTLNNNVNRATQSAKELDVKIKNVIRNVHILLKQISGTDGEG  
NNVPSGDFSREWAEAQRMMRELNRNRFGKHLREAEADKRESQLLLNRIRTWQKTHQGE  
NNGLANSIRDSLNEYAKLSDLRARLQEAAAQAKQANGLNQENERALGAIQRQVKEIN  
SLQSDFTKYLTTADSSLLQTNIALQLMEKSQKEYKLAASLNEARQELSDKVRELSRS  
AGKTSVLVEEAEKHARSLQELAKQLEEIKRNASGDELVRCAVDAATAYENILNAIAAE  
DAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMTQKQLKQEVS PALNNL  
QQTLNIVTVQKEVIDTNLTLRDGLHGIQRGDIDAMISSAKSMVRKANDITDEVLDGL  
NPIQTDVERIKDTYGR TQNEDFKKALTDADNSVNKL TNKL PDLWRKIESINQQLLPLG  
NISDNMDRIRELIQQARDAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYTSLSLFLQR  
PNSRENGGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLGDRE AELQVDQILTKS  
ETKEAVMDRVKFQRIYQFARLN YTKGATSSK PETPGVYDM DGRNSNTLLNLDPE NVVF  
YVGGYPPDFKLPSRLSFPPYKG CIELDDL NENVLSLYNFKKTFNLNTTEVEPCRRKE  
ESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDRG LFFAENGDRFISLNIEDGKL  
MVR YKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINVDVQNTI IDGEVFDF S  
TYYLGGIPIAIRERFNISTPAFRGCMKNLKKTSGVVR LNDTVGVTKKCS EDWKLVRSA  
SFSRGGQLSFTDLGLPPTDHLQASFGFQTFQPSGILLDHQTWTRNLQVTLEDGYIEL S  
TSDSGSPIFKSPQTYMDGLLHYVSVI SDNSGLRL LIDDQLLRNSKRLKHISSSRQSLR  
LGGSNFE GCISNVFVQRLSLSPEVLDLTSNSLKRDVSLGGCSLNKPPFLMLLGSTRF  
NKTKTFRINQLLQDTPVASPRSVKVWQDACSPLPKTQANHGALQFGDIPTSHLLFKLP

FIG. 2D (CONT)

QELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMALYLSKGRNVFALGTDGKKLRIKSK  
EKCNDGKWHTVVFGHDGEKGRNVVDGLRAREGSLPGNSTISIRAPVYLGSPPSGKPKS  
LPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEGGHVVLAHVLL  
GPEFKLVFSIRPRS LTGILIHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTS VTPKQ  
SLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPASTQEPLHLGGAPANLTTLR  
IPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ"

FIG. 2E

1 gggatgcctc cagcagttag gcggtcagcc tgcagcatgg gatggctgtg  
gatctttggg  
61 gcagccctgg ggcagtgtct gggctacagt tcacagcagc aaagggtgcc  
atttcttcag  
121 cctcccggtc aaagtcaact gcaagcgagt tatgtggagt ttagacccag  
ccagggttgt  
181 agccctggat actatcgga tcataaaaggc ttgtataccg gacggtgtgt  
tccctgcaat  
241 tgcaacggac attcaaatac atgccaggat ggctcaggca tatgtgttaa  
ctgtcagcac  
301 aacaccgcgg gagagcactg tgaacgctgc caggaggcactatggcaa  
cgccgtccac  
361 ggatcctgca gggcctgccc atgtcctcac actaacagct ttgccactgg  
ctgtgtggtg  
421 aatggggag acgtgcggtg ctcctgcaaa gctgggtaca caggaacaca  
gtgtgaaagg  
481 tgtgcaccgg gatattcgg gaatccccag aaattcggag gtagctgcc  
accatgcagt  
541 tgtaacagca atggccagct gggcagctgt catcccctga ctggagactg  
cataaaccac  
601 gaacccaaag atagcagccc tgcagaagaa tgtgatgatt gcgacagctg  
tgtgatgacc  
661 ctcctgaacg acctggccac catgggcgag cagctccgcc tggtaagtc  
tcagctgcag  
721 ggcctgagtg ccagcgcagg gcttctggag cagatgaggc acatggagac  
ccaggccaag  
781 gacctgagga atcagttgct caactaccgt tctgccattt caaatcatgg  
atcaaaaata

FIG. 2E (CONT)

841 gaaggcctgg aaagagaact gactgattt aatcaagaat ttgagacttt  
gcaagaaaag  
901 gctcaagtaa attccagaaa agcacaaca ttaaacaaca atgttaatcg  
ggcaacacaa  
961 agcgcaaaag aactggatgt gaagattaaa aatgtcatcc ggaatgtgca  
cattcttta  
1021 aagcagatct ctggacaga tggagaggga aacaacgtgc cttcaggtga  
cttttccaga  
1081 gagtgggctg aagcccagcg catgatgagg gaactgcgga acaggaactt  
tggaaagcac  
1141 ctcagagaag cagaagctga taaaagggag tcgcagctct tgctgaaccg  
gataaggacc  
1201 tggcagaaaa cccaccaggg ggagaacaat gggcttgcta acagtatccg  
ggattctta  
1261 aatgaatacg aagccaaact cagtgacctt cgtgctcggc tgcaggaggc  
agctgccaa  
1321 gccaaggcagg caaatggctt gaaccaagaa aacgagagag ctggggagc  
cattcagaga  
1381 caagtgaaag aaataaattc cctgcagagt gatttcacca agtatctaac  
cactgcagac  
1441 tcatcttgc tgcaaaccaa cattgcgcgt cagctgatgg agaaaagcca  
gaaggaatat  
1501 gaaaaattag ctgccagtt aaatgaagca agacaagaac taagtgacaa  
agtaagagaa  
1561 ctggccagat ctgctggcaa aacatccctt gtggaggagg cagaaaagca  
cgccgcggc  
1621 ttacaagagc tggcaaagca gctgaaagag atcaagagaa acgccagcgg  
ggatgagctg  
1681 gtgcgcgtgt ctgtggatgc cgccaccgccc tacgagaaca tcctcaatgc  
catcaaagcg  
1741 gcccaggacg cagccaacag ggctgccagt gcatctgaat ctgcctcca  
gacagtgata  
1801 aaggaagatc tgccaaagaaa agctaaaacc ctgagttcca acagtataa  
actgttaaat  
1861 gaagccaaaga tgacacaaaaa gaagctaaag caagaagtca gtccagctct  
caacaaccta  
1921 cagcaaaccc tgaatattgt gacagttcag aaagaagtga tagacaccaa  
tctcacaact  
1981 ctccgagatg gtctcatgg gatacagaga ggtgatattg atgctatgat  
cagtagtgca  
2041 aagagcatgg tcagaaaggc caacgacatc acagatgagg ttctggatgg  
gctcaacccc  
2101 atccagacag atgtggaaag aatthaaggac acctatggga ggacacagaa  
cgaagacttc

FIG. 2E (CONT)

2161 aaaaaggctc tgactgatgc agataactcg gtgaataagt taaccaacaa  
actacacctgat  
2221 ctttggcgca agattgaaag tatcaaccaa cagctgttgc ccttggaaa  
catctctgac  
2281 aacatggaca gaatacgaga actaattcag caggccagag atgctgccag  
taaggttgct  
2341 gtccccatga gttcaatgg taaatctgga gtcgaagtcc gactgccaaa  
tgacctggaa  
2401 gatttggaaag gatatacatc tctgtccttg tttctccaaa ggcccaactc  
aagagaaaat  
2461 ggggttactg agaatatgtt tgtatgtac cttggaaata aagatgcctc  
ccgggactac  
2521 atcggcatgg cagttgtgga tggccagctc acctgtgtct acaacctggg  
ggaccgtgag  
2581 gctgaactcc aagtggacca gatcttgacc aagagtgaga ctaaggaggc  
agttatggat  
2641 cgggtgaaat ttcagagaat ttatcagttt gcaaggctta attacaccaa  
aggagccaca  
2701 tccagtaaac cagaaacacc cggagtctat gacatggatg gtagaaatag  
caatacactc  
2761 cttaatttgg atcctgaaaa ttttttattt tatgttggag gttacccacc  
tgattttaaa  
2821 cttcccgatc gactaagttt ccctccatac aaagggtgtt ttgaattttaga  
tgacctcaat  
2881 gaaaatgttc tgagcttgta caacttcaaa aaaacattca atctcaacac  
aactgaagtg  
2941 gagccttgta gaaggaggaa ggaagagtca gacaaaaattt attttgaagg  
tacgggctat  
3001 gctcgagttc caactcaacc acatgctccc atcccaaccc ttggacagac  
aattcagacc  
3061 accgtggata gaggcttgct gttcttgca gaaaacgggg atcgcttcatt  
atctctaaat  
3121 atagaagatg gcaagctcat ggtgagatac aaactgaatt cagagctacc  
aaaagagaga  
3181 ggagttggag acgccataaa caacggcaga gaccattcga ttcagatcaa  
aattggaaaa  
3241 ctccaaaagc gtatgtggat aaatgtggac gttcaaaaca ctataattga  
tggtgaagta  
3301 tttgatttca gcacatatta tctggagga attccaatttga caatcaggga  
aagatttaac  
3361 atttctacgc ctgcttccg aggctgcattg aaaaatttga agaaaaccag  
tgggtgtcggt  
3421 agattgaatg atactgtggg agtaaccaa aagtgcctgg aagactggaa  
gcttgtcgca

FIG. 2E (CONT)

3481 tctgcctcat tctccagagg aggacaattg agtttcactg atttgggctt  
accacacact  
3541 gaccacctcc aggccctcatt tggatttcag acctttcaac ccagtggcat  
attatttagat  
3601 catcagacat ggacaaggaa cctgcaggtc actctggaag atggttacat  
tgaattgagc  
3661 accagcgata gcggcagccc aattttaaa tctccacaga cgtatatgga  
tggtttactg  
3721 cattatgtat ctgtaataag cgacaactct ggactacggc ttctcatcga  
tgaccagctt  
3781 ctgagaaaata gcaaaaaggct aaaacacatt tcaagttccc ggcagtc  
gcgtctggc  
3841 gggagcaatt ttgagggttg tattagcaat gttttgtcc agaggttac  
actgagtcct  
3901 gaagtcctag atttgaccag taactctctc aagagagatg tgtccctgg  
aggctgcagt  
3961 ttaaacaaac cacctttct aatgttgctt aaaggttcta ccaggtttaa  
caagaccaag  
4021 acttttcgta tcaaccagct gttgcaggac acaccagtgg cctcccaag  
gagcgtgaag  
4081 gtgtggcaag atgcttgctc accacttccc aagaccagg ccaatcatgg  
agccctccag  
4141 tttggggaca ttcccaccag ccacttgcta ttcaagcttc ctcaggagct  
gctgaaaccc  
4201 aggtcacagt ttgctgtgga catgcagaca acatcctcca gaggactggt  
gtttcacacg  
4261 ggcactaaga actcctttat ggctctttat cttcaaaaag gacgtctggt  
ctttgcactg  
4321 gggacagatg gaaaaaaatt gaggatcaa agcaaggaga aatgcaatga  
tggaaatgg  
4381 cacacggtgg tggttggcca tcatggggaa aagggcgct tggttgg  
tggactgagg  
4441 gcccgggagg gaagtttgcc tggaaactcc accatcagca tcagagcgcc  
agtttacctg  
4501 ggatcacctc catcagggaa accaaagagc ctccccacaa acagcttgc  
ggatgcctg  
4561 aagaactttc agctggattc aaaacccttgc tataccctt cttcaagctt  
cggggtgtct  
4621 tcctgcttgg gtggccttt ggagaaaaggc atttatttct ctgaagaagg  
aggtcatgtc  
4681 gtcttggctc actctgtatt gttggggcca gaatttaagc ttgtttcag  
catccgccc  
4741 agaagtctca ctgggatcct aatacacatc ggaagtcagc ccgggaagca  
cttatgtgtt

**FIG. 2E (CONT)**

4801 tacctggagg caggaaggt cacggcctct atggacagtg gggcaggtgg  
gacctaaccg  
4861 tcggtcacac caaagcagtc tctgtgtgat ggacagtggc actcggtggc  
agtaccata  
4921 aaacaacaca tcctgcacct ggaactggac acagacagta gctacacagc  
tggacagatc  
4981 cccttcccac ctgccagcac tcaagagcca ctacaccctg gaggtgctcc  
agccaatttg  
5041 acgacactga ggatccctgt gtggaaatca ttctttggct gtctgaggaa  
tattcatgtc  
5101 aatcacatcc ctgtccctgt cactgaagcc ttggaagtcc aggggcctgt  
cagtctgaat  
5161 gttgtcctg accagtaacc caagcctatt tcacagcaag gaaattcacc  
ttcaaaagca  
5221 ctgattaccc aatgcacctc cctccccagc tcgagatcat tcttcactca  
ggacacaaac  
5281 cagacaggtt taatagcgaa tctaattttg aattctgacc atggatacc  
atcactttgg  
5341 cattcagtgc tacatgtgta ttttatataa aaatcccatt tcttgaagat  
aaaaaaaaattg  
5401 ttattcaaat tgttatgcac agaatgttt tgtaatatt aattccact  
aaaaaaaaattaa  
5461 atgtctttta agaaacattc tttccactt gttaaaaaaaaa taaaatataat  
ttaaagcac  
5521 tttaagaata tgaaacttcc atatatgtta aaggattata atttatggaa  
ttaaaaaaaaatg  
5581 cagtgtagtc cttaaaaaaaaa a

**FIG. 2F**

MPPAVRRSACSMGWLWIFGAALGQCLGYSSQQQRVPFLQPPGQS  
QLQASYVEFRPSQGCSPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTA  
GEHCERCQEGYYGNAVGSCRACPCPHTNSFATGCVVNGGDVRCSCAGYTGTQCERC  
APGYFGNPQKFGGSCQPCSCNSNGQLGSCHPLTGDCINQEPKDSSPAEECDDCDSCVM  
TLLNDLATMGEQLRLVKSQIQLGLSASAGLLEQMRHMETQAKDLRNQLLNYRSAISNHG  
SKIEGLERELTDLNQEFTLQEKAQVNSRKAQTLNNNVNRATQSAKELDVKIKNVIRN  
VHILLKQISGTDGEGNNVPSGDFSREWAEQRMMRELNRNFGKHLREAEADKRESQL

FIG. 2F (CONT)

LLNRIRTWQKTHQGENNGLANSIRDSDLNEYEAKLSDLRARLQEAAAQAKQANGLNQEN  
ERALGAIQRQVKEINSLQSDFTKYLTTADSSLQTNIALQLMEKSQKEYKLAASLNE  
ARQELSDKVRELSRSAGKTSLEEAKHARSLQELAKQLEEIKRNASGDELVRCAVDA  
ATAYENILNAIKAAEDAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMT  
QKKLKQEVPALNNLQQTLNIVTVQKEVIDTNLTLRDGLHGIQRGIDAMISSAKSM  
VRKANDITDEVLDGLNPIQTDVERIKDTYGRQNEDFKKALTDADNSVNKLTKLPDL  
WRKIESINQQLLPLGNISDNMDRIRELIQQARDAAASKVAVPMRFNGKSGVEVRLPNDL  
EDLKGYTSLSLFLQRPNSRENGGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLG  
DREAELOVDQILTKSETKEAVMDRVKFQRIYQFARLNFTKGATSSKPETPGVYDMGR  
NSNTLLNLDPENVVFYVGGYPPDFKLPSRLSFPPYKGCIELDDLNEVLSLYNFKKTF  
NLNTTEVEPCRRKEESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDRGLLFFAE  
NGDRFISLNIEDGKLMVRYKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINV  
DVQNTIIDGEVFDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTSGVVRLNDTVG  
VTKKCSEDWKLVRSAFSRGQQLSFTDLGLPPTDHLQASFQFGQTFQPSGILLDHQTWT  
RNLQVTLEDGYIELSTSDGSPIFKSPQTYMDGLHYVSVISDNSGLLLIDDQLLRN  
SKRLKHISSSRQSLRLGGSNFEGCISNVFVQRLSLSPEVLDLTSNSLKRDVSLGGCSL  
NKPPFLMLLGSTRFNKTFRINQLLQDTPVASPRSVKVWQDACSPLPKTQANHGAL  
QFGDIPTSHLLFKLPQELLKPRSQFAVDMQTSSRGLVFHTGKNSFMALYLSKGRLV  
FALGTDGKKLRIKSKECNDGKWHTVVFGHDGEKGRVVVDGLRAREGSLPGNSTISIR  
APVYLGSPSGKPKSLPTNSFVGCLKNFQLDSPLYTPSSSGVSSCLGGPLEKGIYF  
SEEGGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASM  
DSGAGGTSTSVPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQE

FIG. 2F (CONT)

PLHLGGAPANLTLRIPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ

FIG. 2G

1 gtataagagg aagaacacaa aggttgcag cagccaggca gaacaccaag  
ggatcaagat  
61 gccgcctaca gtgaggtggc cagcctggc cacaggatgg ctgtggatct  
ttggggcagc  
121 tctggccag tgcctgggt atggctcaga gcagcaaagg gtagcatttc  
ttcagcatcc  
181 agggcaaaac catctgcaag caagttatat ggagcttaga cccagccagg  
gctgtcgccc  
241 aggatactat cgagacatca aaagcttccc tgccggagg tctgtccct  
gcaattgcaa  
301 cggacattca aatagatgcc aagacggctc gggagtgtgc attaactgtc  
agcacaacac  
361 agctggggag cactgtgagc gttgcaagag gggttactat ggaagcgcca  
tccatggatc  
421 ctgcagggtt tgccctgtc ctcacaccaa cagcttgcc actggctgtg  
ctgtggatgg  
481 aggagctgtg aggtgtgcct gcaaaccgg atacacagga gcacagtgtg  
agaggtgtgc  
541 accaggatat tttggaaacc cccagaaatt tggaggtagc tgccaaccat  
gcaattgcaa  
601 cagtaatggc cagttggca cttgtatcc cctaactgga gactgtgtaa  
gccaagaacc  
661 caaagatggc agccctgcag aagaatgtga tgactgtgac agctgtgtga  
tgactctcct  
721 aaatgacttg gtcccatgg gtgaggaact cgcctggc aaatcaaaac  
ttcagggct  
781 gagtgtgaac actgggtctc tggAACAGAT ccggcatgtg gagatgcagg  
ccaaggacct  
841 gaggaaccag ctgcttggct tccgttccgc catctccagt cacgggtccc  
aaatggacgg  
901 cctggaaaaaa gaactcagtc atttgcacca ggaattcgaa actttgcaag  
aaaaggcgca  
961 ggtcaattcc agaaaagcac aaacattata taacaacatc gatacgacaa  
tccaaaacgc  
1021 caaagagttg gacatgaaga ttaaaaacat acttacgaat gtgcacattc  
tcctgaagca  
1081 gatcgctcg ccaggtggag aaggaatgga cttgcgggtg ggccactgg  
ccagggatc

FIG. 2G (CONT)

1141 ggccgaagct cagcgcgt tgccggagct gcgaggccga gactttaaaa  
agcaccccca  
1201 agaagcagag gcccagaaaa tggaaagccca gctcttactg aaccgaatca  
ggacctggct  
1261 ggaatcccac caggtggaga acaatggact gctaaagaat attcgggatt  
cattaaatga  
1321 ttatgaagcc aaacttcagg acctgcgttc cgtgcttcag gaggcggcag  
cccaggaaaa  
1381 gcaggctaca ggcctcaacc acgaaaatga gggggtccta ggagccatcc  
agagacaaat  
1441 gaaggaaatg gattccctga agaagtacct caccgagcac ctggccacag  
cagacgcttc  
1501 cctgctgcaa accaacagtc tactgcagcg gatggacacg agccagaagg  
agtatgaaag  
1561 cttagctgct gctttaaacf gagcaagaca ggaactgaat gaccaagtgc  
ggaaactctc  
1621 cagatccgga ggcaaagcac ccctgggtggc tgaggccgag aagcacgctc  
agtcttaca  
1681 ggagctggca aagcagctgg aagagataaa gagaaacacc agtggggatg  
agtccgtgcg  
1741 ctgtgtcgtg gacgctgcca ctgcctatga gagcatcctc aacgccatcc  
gagcagcaga  
1801 ggatgcagcc ggcaaggccg acagtgcctc agagtccgcc ttccagacag  
tgataaagga  
1861 agatcttccg agaagagcca aaaccctgag ttctgacagc gaggaactgt  
taaacgaggg  
1921 caagatgaca cggaaaaggc tacagcaaga aatcaatcca gctctcaaca  
gcctacagca  
1981 aaccctgaag actgtatcag ttcagaagga cctgcttagat gccaatgtca  
ctgctgtccg  
2041 taatgacctt cgtggatcc agagaggtga tattgacagt gtggtgagtg  
gagcgaagag  
2101 catggtcagg aaagccaatg ggataacgag cgaggtcctg gacgggctca  
gccccatcca  
2161 gacggatttg ggaaggatta aggacagcta cgggagcaca cggcatgagg  
acttcaacaa  
2221 agctctgatt gacgccaata actcagtaaa gaaattaacc aagaagttgc  
ctgatcttt  
2281 tgtcaagatt gaaagcatca atcaacagtt gctgcccctg ggaaacatct  
ctgacaatgt  
2341 agaccgaatc cgagagctca ttacgcaggc cagagatgct gcgaacaagg  
ttgcaattcc  
2401 catgaggttc aatggtaat ctgggttga agtccgtctg ccaaattgacc  
tagaagactt

FIG. 2G (CONT)

2461 gaagggatac acgtctctgt ctttgttcct ccaaagacca gacttaagag  
agaatggagg  
2521 cactgaggac atgtttgtaa tgtacccctgg aaacaaggat gcctccaagg  
actacatcg  
2581 catggcggtt gtagatggcc agctgacgtg tgtctacaac ctgggggacc  
gagaagctga  
2641 agttcagatc gatcaggtcc tgacggagag tgagtctcag gaggcagtt  
tggaccgggt  
2701 gaagttccag agaatatatc aatttgccaa gcttaattac accaaagaag  
ccacgtccaa  
2761 taaacccaaa gctcccgccg tctacgacct ggagggtggc agtagcaaca  
cgctccttaa  
2821 tttggatccc gaggacgctg tgtttatgt cggaggttac ccaccggatt  
ttgaacttcc  
2881 tagcagactg cggttccctc catacaaagg ctgtatcgaa ctagatgacc  
tcaatgaaaa  
2941 cgttctaagc ttgtacaatt tcaagacaac tttcaatctc aacaccacgg  
aggtggagcc  
3001 ttgttaggagg agaaaggaag agtcagacaa aaattacttt gaaggtacag  
gctatgctg  
3061 catccctact caaccaaatg ctcccttccc aaacttcata cagaccatcc  
agactactgt  
3121 ggacagaggt ttactgttct tcgcagaaaa ccaggataac ttcatatctc  
tgaacataga  
3181 agatggcaat ctcattgtga gatacaaact aaattcagag ccacccaaag  
agaagggaaat  
3241 tcgagacacc atcaacgatg ggaaagatca ttcatatctt atcacaattt  
gaaaactaca  
3301 aaaacgcatt tggataaaatg tgaacgaacg cagtgtacga atcgaagggg  
aaatatttga  
3361 tttcagcaca tattatgg gcggattcc aattgcaatc agagaaaggt  
ttaacatctc  
3421 aacgcctgct ttccaggct gcatgaagaa tctgaagaaa accagtgggg  
ttgtcagggt  
3481 gaatgatact gtgggtgtaa ccaagaagtg ctcagaagac tggaaagctt  
tgcaaccgc  
3541 ctgttctcc agaggaggc agatgagctt tacaaacttgc gacgtgcct  
cgactgaccg  
3601 cttccagctc tcctttgggt ttcagacctt tcaacccagt ggcacactgc  
tcaatcatca  
3661 gacgcggaca agcagcctgc tggtcaccct ggaagatggg cacattgagt  
tgagcactag  
3721 ggacagcaac atcccaattt tcaagtctcc agggacctac atggacgggt  
tactgcata

FIG. 2G (CONT)

3781 tgtatctgta ataagtgaca cctcaggtct ccgccttctc atcgatgacc  
aggtcctgag  
3841 aaggaaccag aggcttccta gcttctctaa cgcccagcag tcgctccgccc  
ttggaggagg  
3901 tcatttcgag gtttatca gcaatgtttt agtccaaagg tttcacaga  
gtccagaagt  
3961 cctggatctg gccagtaaat ctaccaagaa ggatgcattcc ctaggaggct  
gcagttaaa  
4021 caagccacct tttcttatgt tgtttaaaag tcccaagaga tttaacaagg  
gccggatttt  
4081 caatgttaat cagctgatgc aagatgcacc tcaggccaca aggagcacag  
aggcttggca  
4141 agatgggagg tcctgcctac cacctctgaa caccaaggcc tctcacagag  
ccctgcagtt  
4201 tggagacagc cccaccagcc acttgctact caagcttccc caggaactgc  
tgaaacctag  
4261 gtcacagttt tcttagaca tacagacaac ttccccaaa ggactgggt  
tttacgcagg  
4321 caccaaggac tccttcctgg ctctttatgt cgcatggc cgtgttgtct  
ttgctttggg  
4381 ggcaggaggg aagaaactga gactcaggag caaggagaga taccatgacg  
ggaagtggca  
4441 cacggtggtg ttcggactaa atggagggaa ggcacgcctg gttgtggatg  
ggctaaggcc  
4501 ccaggaaggc agttgcctg gaaattctac catcagcccc agagaacagg  
tttacctagg  
4561 gttgccgcta tcaagaaagc caaagagcct accccagcac agttttgtgg  
ggtgccctgag  
4621 agattccag ttgaactcga aaccctgga ttctccttct gcgaggttg  
gggtatctcc  
4681 ctgcttgggt ggctctttag agaaaggcat ttatttctcc caaggaggag  
gccatgtgat  
4741 cctagccaat tctgtgtcct tggggccaga gcttaagctc actttcagca  
ttcgccccacg  
4801 gagtctcact ggggtcttaa tacacgtcg aagtcaatct ggacagcgct  
taagtgtgta  
4861 catggaggca ggaaaggtca caaccctctgt gagcagtgtat gcaggaggaa  
gtgtgacatc  
4921 aattacaccg aagcagtctc tgtgtgatgg acagtggcac tcgggtggcag  
tctccattaa  
4981 acagcgcattc ctgcattctag aactggatac agacagtagc tacacagtcg  
caccacttc  
5041 cttctcacca aacagcaccc gagggtcact gcacgtcgaa ggtgtcccag  
acaaattgaa

FIG. 2G (CONT)

5101 aatgcttaca ctccctgtgt ggaactcatt ttttggttgt ctgaagaata  
ttcaagtcaa

5161 ccatgtccct gtccccatca cagaagccac agaagtccaa gttctgtca  
gcctgaatgg

5221 ctgccctgac cactaaccct acacagcaag attcaccttt ggag

FIG. 2H

MPPTVRWSAWCTGWLWIFGAALGQCLGYGSEQQRVAFLQHPGQN

HLQASYMELRPSQGCRPGYYRDIKSFPAGRSVPCNCNGHSNRCQDGSGVCINCQHNTA

GEHCERCKRGYYGSAIHGSCRVCPCHTNFSATGCAVDGGAVRCACKPGYTGAQCERC

APGYFGNPQKFGGSCQPCNCNSNGQFGTCDPLTGDCVSQEPKDGSPAEECDDCDSCVM

TLLNDLVPGEELALVKSQIQLSVNTGSLEQIRHVEMQAKDLRNQLLGFRSAISSHG

SQMDGLEKELSHLYQEFETLQEKAQVNSRKAQTLNNIDTTIQAQELDMKIKNILTN

VHILLKQIARPGGEGMDLPVGDWSRESAEAQRMLRELGRDFKKHLQEAEAQKMEAQL

LLNRIRTWLESHQVENNGLKNIRDLSNDYEAKLQDLRSVLQEAAAQGKQATGLNHEN

EGVLGAIQRQMKEMDSLKKYLTEHLATADASLLQTNSLLQRMDTSQKEYESLAAALNG

ARQELNDQVRELSRSGGKAPLVAEAEKHAQSLQELAKQLEEIKRNTSGDESVRCVVDA

ATAYESILNAIRAAEDAAGKADSASESAFQTVIKEDLPRRAKTLSSDSEELLNEAKMT

RKRLQQEINPALNSLQQTLKTVSVQKDLLDANVTAVRNDLRGIQRGDIDSVVSGAKSM

VRKANGITSEVLDGLSPIQTDLGRIKDSYGSTRHEDFNKALIDANNSVKKLTKLPDL

FVKIESINQQLLPLGNI SDNVDRIRELITQARDAANKVAIPMRFNGKSGVEVRLPNDL

EDLKGYTSLSLFLQRPDLRENGGTEDMFVMYLGNKDASKDYIGMAVVDGQLTCVYNLG

DREAEVQIDQVLTESESQEAVMDRVKFQRIYQFAKLYTKEATSNKPKAPAVYDLEGG

SSNTLLNLDPEDAVFYVGGYPPDFELPSRLRFPPYKGCIELDDLNENVLSLYNFKTTF

NLNTTEVEPCRRRKEESDKNYFEGTGYARIPTQPNAPFPNFIQTIQTTVDRGLLFFAE

FIG. 2H (CONT)

NQDNFISLNIEDGNLMVRYKLNSEPPKEKGIRDTINDKDHSILITIGKLQKRMWINV  
NERSVRIEGEIFDFSTYYLGGIPIAIRERFNISTPAFQGCMKNLKKTSGVVRNLNTVG  
VTKKCSEDWKLVRTASFSGGQMSFTNLDVPSTDRFQLSFGFQTFQPSGTLLNHQTRT  
SSLLVTLEDGHIELSTRDSNIPIFKSPGTYMDGLLHHVSVISDTGLRLLIDDQVLRR  
NQRLPSFSNAQQSLRLGGGHFEGCISNVLVQRFSQSPEVLDLASKSTKKDASLGGCSL  
NKPPFLMLFKSPKRFNKGRIFNVNQLMQDAPQATRSTEAWQDGRSCLPPLNTKASHRA  
LQFGDSPTSHLLKLPQELLKPRSQFSLDIQTTSKGLVFYAGTKDSFLALYVADGRV  
VFALGAGGKKLRLRSKERYHDGKWHTVVFGNNGKARLVVDGLRAQEGLPGNSTISP  
REQVYLGLPLSRKPQSLPQHSFVGCLRDFQLNSKPLDSPSARFGVSPCLGGSLEKGIY  
FSQGGGHVILANSVSLGPELKLTFSIRPRSLTGVLIHVGSQSGQRLSVYMEAGKVTT  
VSSDAGGSVTSITPKQSLCDGQWHSAVSIKQRILHLELDTDSSYTVAPLSFSPNSTR  
GSLHVGGVPDKMLTPVWNSFFGCLKNIQVNHVPVPITEATEVQGSVSLNGCPDH

FIG. 2I

1 atgtcagagg gcatttgctg ccgagctggc gcacttgca agagtggaca  
gcaagtttcc  
61 actgtggtgg tggtagatcc accaaaccat gccagtgaa tgagaactga  
atgcagccca  
121 ccagagcacg tgcacacgtg cattaaggaa cctcagaatc agctcttcca  
tgtggctt  
181 atcttaatca aatttgcaaa ctctccccgc cctgatctt ggatcctgga  
aagatctgta  
241 gactttggaa gcacctactc accatggcag tattttgctc attctagaag  
agattgtgta  
301 gaacagtttggaa ggcaagaagc aaacatggca attaccagg acgaccagat  
gctctgtgtc  
361 acggagtatt cccgtatcgt gcctctggaa aatggcgaga ttgttgtatc  
cttgataaat  
421 ggtcgtccag gtgaaaaaaaaa gtttgcttcc tctgacactc tgagggagtt  
tactaaggca

FIG. 2I (CONT)

481 acaaacatcc gcttcgggtt tctgcgaacc aacaccctcc tcgggcattct  
tatttccaag  
541 gcagagcgag accccactgt cacgcgcggg tattattgca tgaaagctga  
tgatgctcg  
601 ttctctgtcc tgcagtatta ttacagcata aaggatatca gtgttgggtgg  
gcgggtgttt  
661 tgcaacggcc atgcggaggc gtgcagtgtc gacaaccctg aaaagcagtt  
ccgatgcgaa  
721 tgccagcacc atacctgtgg agacacgtgt aaccgctgtc gtgcaggtta  
caatcagagg  
781 cgctggcagc ctgctggtca ggagcagcac aatgagtgtg aagcctgcaa  
ctgccatggg  
841 catgctgtgg actgctacta tgaccagac gtggagcacc agcaggcgag  
cttgaacagc  
901 aaaggcgtct acgcagggtgg aggggtctgc atcaactgtc agcacaacac  
tgcaggcgtg  
961 aactgtgaaa agtgtgcaaa gggttacttc cggcccatg gagttccgg  
ggatgcactg  
1021 catggatgca tcccttgcag ctgtgaccca gaacgcgcag atgactgtga  
ccagggctca  
1081 ggccactgcc attgttaagcc aaatttctcc ggagactact gtgagacgtg  
tgcagatggg  
1141 tactataatt ttccattttg cttgagaatt ccagtcttc ccaactacac  
tccaagtcca  
1201 gaagatccag tggctggcaa tataaaaggc aaggatccag ggactctaga  
cccaccagtc  
1261 atagcaaatg gggcatatct tggagcttca agactagagc aaggagccac  
aggccagggc  
1321 agccctgctg agagggtcac ccacaccaac tcatggctga gttcctcaat  
gcctatgctc  
1381 caggttaggg ctgccatcca tgaggctaag tttactctc tgtgtttctg  
tatgtatgtt  
1441 gagcacagtg ggactgtacc acctgctctg gggtcagggtt atacagggga  
ctctgagcct  
1501 aaaacaggaa cccaggcaaa aaggggggtgt gactgttaact tgaaaggtgt  
tctcccaagag  
1561 atatgtgacg atcgtggcag gtgcctgtgc cgccctgggg ttgagggtcc  
ccagtgtgac  
1621 tcctgcccgt cgggctccta ttcatttccc atatgccaag cttgccagtg  
ttcgacgatt  
1681 ggatcctatc cagtgccctg tgaccgggg aatggccagt gtgactgcct  
gcctggaaatt  
1741 accgggagggc agtgtgacag gtgtctctcg ggagcctatg actttccata  
ctgccaagg

FIG. 2I (CONT)

1801 aaggaagccg gcagcatgtt ggaggctcg tcctcatctg agtgggtgca  
gctgaccctct  
1861 tggagaagcc tgggttattg tcagtgcag cagcatgttgc aagtcctac  
atgttagtgctc  
1921 tgcaaaccat tatattggaa tctggccaaa gaaaacccccc gtggatgctc  
agagtgcac  
1981 tgccatgaag cagggacatt gagtgaaatt ggagagtgtg ggcaggagga  
cggtgactgt  
2041 agctgcaaag cccatgtAAC tggtgatgcc tgccgacacct gtgaagatgg  
gtttttctct  
2101 ttggagaaga gcaattactt tggctgtcaa gggtgtcagt gtgacattgg  
tggagcactc  
2161 accaccatgt gtagtggcc ctggggagta tgccagtgcag gagagcacgt  
ggagggggaaa  
2221 cagtgccaga ggcctgaaaa taactactac ttcccgatt tgcaccacat  
gaagtatgag  
2281 gtcgaagatg gcactggacc taatggaaga aacctgcggg ttggatttg  
tcccctggta  
2341 ttccctgagt ttagctggag aggatatgct ccaatgacacct cagtcaggt  
atatatgagt  
2401 gagtggtgtgt gtcctctaca ctgcatgtta ttttgggta ctttcagaa  
tgaagtaagg  
2461 gtgagattgt ctgtgaggca gtccagcctc tccttggcc gcatcgttct  
gagatacatc  
2521 agtcctggaa cggaagccat atccggccga atcactctt actcatcgca  
gggagattcg  
2581 gatgctttgc aaagcagaaa aatcaccttt ccccccggta aagagccagc  
ctttgtcaca  
2641 gtcctggaa atggctttgc aggcccattc tccatcacac ctgggacgtg  
gattgcttgc  
2701 atccaggtgg aaggagtcct tctggactac ctggtgctgc ttcccaggaa  
ctactatgaa  
2761 gcattcaccc tgcaagtgc agtcacagag ccatgtgcac acacaggatc  
tccccaggac  
2821 aactgtttgc tttaccagca tttaccactg actgcattct cctgtaccct  
ggcttgc  
2881 gccagacact tcctgctgga tggagagctg agacccttgg caatgaggca  
gccccacaccc  
2941 acacacccag ccatggtgga cctcagcggg agagaggttag aactgcagct  
tcgtctgcgg  
3001 gtcccacagg ttggccacta cgtggcctg ctggagttatg ccacggaggt  
ggagcagctt  
3061 tttgtgggtgg acgtgaatct gaagagctca gggtctgcct tggcaggcca  
ggtaacata

FIG. 2I (CONT)

3121 tacagctgca agtacagcat cccgtgcagg agtgtggta ttgacagcct  
gagtgcacg  
3181 gctgtacatg agctgttggc agatgcagac attcagctca aggcgacat  
ggcccattc  
3241 cttttgtatc acatttgtat tataccagct gaagaattct caactgaata  
ttttagacat  
3301 caagtccact gcattgccag ctacaggcag catgctaatac caagtgcctc  
ctgtgtctcc  
3361 ctggcccatg aaactcctcc aacagcctca attttggatg ctacaagtag  
ggccctttc  
3421 tctgccctac ctcatgagcc ttcctctcct gcagatggag ttactctgaa  
ggcaccacag  
3481 agtcaagtga ccctgaaagg actcataccca cacctgggcc gacacgtctt  
tgtcatccat  
3541 ttttatcaag cagagcaccc agggttccc actgaggtga ttgtaatgg  
aggaagacag  
3601 tggtcaggtt ctttcattgc ctcctctgt ccccacttac ttggctgccc  
ggaccaggtg  
3661 atctctgatg gccaagtgga gtttgacatc tctgaagcag agtagctgt  
gacagtgaag  
3721 attccagatg gaaagtcatt aacattggtc cgggttctag tggtaacctgc  
agagaattac  
3781 gactacaaa ttcttcacaa aacaacagtg gacaagtctt ccgagttcat  
cagcagttgt  
3841 ggaggagaca gctttatat tgatccccag gcagcctctg gattctgtaa  
gaattctgca  
3901 aggtccctgg tagcctttta ccataacggt gccataaccct gtgagtgcc  
ccctgctggg  
3961 actgccggcc accactgttag tcctgagggt gggcagtgcc cttgccggcc  
caatgtcatc  
4021 gggaggcagt gcagccgctg tgcgacaggc tactatggat tccctactg  
caagccttgc  
4081 aatttgtggca gacgccttg tgaagaggtg acaggaaagt gtctctgccc  
accccacaca  
4141 gtcaggcctc agtgtgaggt ctgtgagatg aattcattca actttcaccc  
tgtggctggc  
4201 tgtgacgtct gcaactgctc caggaaggc accattgagg cggccgtctc  
tgagtgtgac  
4261 agggacagcg ggcagtgcag gtgcaaggct agagtcacag ggcagcagt  
tgacaagtgt  
4321 gctcctggct tctaccagtt ccctgagtgt gtccctgca gctgtaacag  
agatgggact  
4381 gagcccagcg tatgtgaccc agagactggg gcttgcattgt gcaaggaaaa  
tgtagagggc

FIG. 2I (CONT)

4441 cccaaatgtc aactgtgtcg agaaggatca ttctacctgg acccaacaaa  
cccaaagggt  
4501 tgtaccaagt gcttctgttt tggagtgaat actgactgtc agagttcgca  
taagcaacga  
4561 gctaagttt tagacatgtat gggctggcgt ctggagacag cagatggagt  
tgatgtccct  
4621 gtgtccttca accctggcag caacagcatg gtggcagatc tgcaggagct  
gccaccctca  
4681 gttcacagtg catcctgggt ggcaccccca tcctaccttag gtgataaggt  
atcatcgtac  
4741 ggcggctacc tcacccatcca cgccaaagtcc tttggcttac ctggagatat  
ggttcttctg  
4801 ggaaagcagc cagatgtgca gctcactggc caacacatgt ccctcatcca  
taaggaaccc  
4861 agcgacccac ggccagacag gctgcatcac ggaagagtgc aagtgattga  
gggaaacttc  
4921 agacacgaag gcagcagtgc cccagtgtcc cgggaggagc tgatgactgt  
gctgtccaga  
4981 ctggaaagac tccacatccg gggcctccat ttcaccgaga cacagcggct  
cacccctgggt  
5041 gaggttagggc tggaggaggc ctctgacacg ggaagcggac ccagggctca  
tcttggag  
5101 atgtgtgcct gccccctga ctacacaggt gactcatgcc agggttgtcg  
ccctggatac  
5161 tattggaca acaaaagctt acctgttaga aggtgtgttc cctgcaattg  
caacggacat  
5221 tcaaataatgcat gccaggatgg ctccggata tgcattaact gtcagcacaa  
cacagctggg  
5281 gagcactgtg agcgttgcac agcaggtcac tatggaaatg ccatccacgg  
atcttggtagg  
5341 gtctgcccct gccctcatac caacagttt gccaccggct gtgctgtgga  
tggtag  
5401 gtgaggtgtg cctgcaaacc cggatacaca ggaacacagt gtgagaggtg  
tgcaccagga  
5461 tattttggga acccccagaa atttggaggt agctgccagc catgcaattg  
taacagcaat  
5521 ggccagttag gtccttgcga cccccctaact ggagactgtg taaaccaaga  
acccaaagat  
5581 ggcagccctg cagaagaatg tgatgactgc gacagctgtg tgatgacgct  
cttaaatgac  
5641 ttggcctcca tgggtgagga actccgcctg gtgaagtcaa agctgcaggg  
gctgagtg  
5701 agcacgggtg ctctggaaca gatccggcac atggagacgc aggccaagga  
cctgaggaac

FIG. 2I (CONT)

5761 cagctgcttg gcttccgttc tgccacaccta agtcatgggt cccaaatggaa  
tgacacctgaa  
5821 aaagagctga gtcatttgaa ccggaaattt gaaactctgc aagaaaaggc  
acaggtcaat  
5881 tccagaaaaag cacaaacatt atataacaac attgatcaga caatccaaag  
tgccaaagaa  
5941 ctggacatga agataaaaaa catcggttcag aatgtgcaca ttctcctgaa  
gcagatggcg  
6001 aggccaggtg gagaaggcac ggacttgcca gtgggtgact ggtccaggaa  
gctggccgaa  
6061 gctcaacgca tgcgtcgaga cctgcgaagc cgagacttta aaaagcacct  
ccaaagaagca  
6121 gaggccgaga aaatggaagc ccagcttta ctgcaccgga tcaggacctg  
gctggaaatcc  
6181 caccaggtgg agaacaacgg actgctaaag aatattcggg actccttaaa  
tgattatgaa  
6241 gacaaacttc aggacctacg ttccatcctc caggaggcag ctgcccaggc  
aaagcaggcc  
6301 actggcatca accatgaaaaa tgaggggtt ctcggagcca tccagagaca  
aatgaaagaa  
6361 atggattccc tgaagaatga ctgcaccaag tacctggcca cagccgactc  
ttccctgctg  
6421 cagaccaaca atctactgca gcagatggac aaaagccaga aggaatatga  
aagcttagct  
6481 gctgcttaa atggagcaag acaggaactg agtgcacagag tgcgagaact  
gtccagatcg  
6541 ggtggcaaag caccgctgggt ggtggaggca gagaagcatg cacagtctt  
acaggagctg  
6601 gcaaagcagc tggaagagat aaagagaaac accagcgggg atgagctggt  
gcgttgtgct  
6661 gtggatgctg ccacggccta tgagaacatc ctcaatgcca tcagagcagc  
agaggatgca  
6721 gccagcaagg ccaccagtgc ctccaagtct gccttccaaa cagtataaa  
ggaagacctt  
6781 caaaaaagag ctaagaccct gagttctgac agcgaggaac tgttaatga  
agccaagatg  
6841 acacagaaaa ggctacagca agtcagtcca gctctcaaca gcctacaaca  
aaccctgaag  
6901 actgtatcag ttcagaagga cctgcttagat gccaacctca ctgttgcgg  
tgatgatctt  
6961 catggatac agagaggtga tatcgacagt gtgggtgatcg gtgcaaagag  
catggtcagg  
7021 gaagccaaacg gaataacaag cgaggtcctg gacgggctca accccatcca  
gacagatttg

FIG. 2I (CONT)

7081 ggaaggatta aggacagcta tgagagcgca cggcgtgaag acttcagcaa  
ggctctggtc  
7141 gatgccaata actcagtaaa gaaattaacc aggaagttgc ctgatcttt  
tatcaagatt  
7201 gaaagtatca accaacagtt gctgcccctg ggaaacatct ctgacaatgt  
ggaccgaatc  
7261 cgagaactca ttcagcaggc cagagatgct gcaaacaagg tgggtattcc  
catttggctc  
7321 tag

FIG. 2J

MSEGICCRAGALCKSGQQVSTVVVDPNHASGRTECSPPHEV  
HTCIKEPQNQLFHVAYILIKFANSPRPDLWILERSVDFGSTYSPWQYFAHSRRDCVEQ  
FGQEANMAITQDDQMLCVTEYSRIVPLENGEIVVSLINGRPGAKKFAFSDTLREFTKA  
TNIRLRFLRTNTLLGHLISKAERDPTVTRYYCMEADDALFSVLQYYYSIKDISVGGR  
CVCNGHAEACSADNPEKQFRCECQHHTCGDTCNRCCAGYNQRRWQPAGQEQQHNECEAC  
NCHGHAVDCYYDPDVEHQASLNSKGVYAGGGVCINCQHNTAGVNCEKCAKGYFRPHG  
VPVDALHGCIPCSCDPERADDQGSGHCHCKPNFSGDYCETCADGYYNFPFCLRIPV  
FPNYTPSPEDPVAGNIKGKDPGLDPPVIANGAYLGASRLEQGATGQGSPAERVTHTN  
SWLSSSMPMLQVRAAIHEAKCYSLCFCMYVEHSGTVPPALGSGYTGDSEPKTGTQAKR  
GCDCNLEGVLPEICDDRGRCLCRPGVEGPQCDSCRSGSYSFPICQACQCSTIGSYPPV  
CDPGNGQCDCLPGITGRQCDRCLSGAYDFPYCQGKEAGSMLEARSSSEWVQLTSWRSL  
GYCQCKQHVASPTCSVCKPLYWNLAKENPRGCSECQCHEAGTLSGIGECGQEDGDCSC  
KAHVTGDACDTCEDGFFSLEKSNYFGCQGCQCDIGGALTTMCSGPSGVQCRCHEV  
QCQRPENNYYFPDLHHMKYEVEDGTGPNGRNLRGFDPLVPEFSWRGYAPMTSVQVY  
MSECVCPLHCMFWGTFQNEVRVRLSRQSSLFRIVLRYISPGTEAISGRITLYSS  
QGDSDALQSRKITFPPSKEPAFVTVPNGFAGPFSITPGTWIACIQVEGVLLDYLVLL

FIG. 2J (CONT)

PRDYYEAFTLQPVTEPCAHTGSPQDNCLLYQHLPLTAFSCTLACEARHFLLDGELRP  
LAMRQPTPTHAMVDSLGSREVELQLRLRVPQVGHYVVLLEYATEVEQLFVVDVNLKSS  
GSALAGQVNIYSCKYSIPCRSVVIDSLSRTAVHELLADADIQLKAHMAHFLLYHICII  
PAEEFSTEYLRPQVHClASYRQHANPSASCVSLAHEETPPTASILDATSRGLFSALPHE  
PSSPADGVTLKAPQSQVTLKGLIPHLGRHVFVIHFYQAEHPGFPTEVIVNGGRQWSGS  
FLASFCPHLLGCRDQVISDGQVEFDISEAEVAVTVKIPDGKSLTLVRVLVVPAENYDY  
QILHKTTVDKSSEFISSCGGDSFYIDPQAASGFCKNSARSLVAFYHNGAIPCECDPAG  
TAGHHCSPEGGQCPCKRPNVIGRQCSRCATGYYGFPYCKPCNCGRRLCEEVTGKCLCPP  
HTVRPQCEVCEMNSNFHPVAGCDVCNCRKGTIEAAVSECDRDSGQCRCKPRVTGQQ  
CDKCAPGFYQFPECVPCSCNRDGTEPSVCDPETGACMCKENVEGPQCQLCREGSFYLD  
PTNPKGCTKCFCFGVNTDCQSSHKQRAKFVDMMGWRLETADGVDPVSFNPGNSNMVA  
DLQELPPSVHSASWVAPPASYLGDKVSSYGGYLTYHAKSFGLPGDMVLLGKQPDVQLTG  
QHMSLIHKEPSDPRPDRLHHGRVQVIEGNFRHEGSSAPVSREELMTVLSRLERLHIRG  
LHFTETQRLTLGEVGLEEASDTGSGPRAHLVEMCACPPDYTGDCQGCRPGYYWDNKS  
LPVGRCPNCNGHSNRCQDGSGICINCQHNTAGEHCERCQAGHYGNAIHGSCRVCPC  
PHTNSFATGCAVDGGAVRCACKPGYTGTQCERCAPGYFGNPQKFGGSCQPCNCNSNGQ  
LGPCDPLTGDCVNQEPKDGSPAEECDDCDSCVMTLLNDLASMGEELRLVKSKLQGLSV  
STGALEQIRHMETQAKDLRNQLLGFRSATSSHGSKMDDLEKELSHLNREFETLQEKAQ  
VNSRKAQTLNNIDQTIQSAKELDMKIKNIVQNVHILLKQMARPGGEGTDLPGDWSR  
ELAEAQRMMRDLRSRDFKKHLQEAEAEKMEAQLLLHRIRTWLESHQVENNGLKNIRD  
SLNDYEDKLQDLRSILQEAAAQAKQATGINHENEGVLGAIQRQMKEMDSLKNDFTKYL  
ATADSSLQTNLLQQMDKSQKEYESLAAALNGARQELSDRVRELSRSGGKAPLVVEA

FIG. 2J (CONT)

EKHAQSLQELAKQLEEIKRNTSGDELVRCAVDAATAYENILNAIRAAEDAASKATSAS  
KSAFQTVI覩EDLPKRAKTLSSDSEELLNEAKMTQKRLQQVSPALNSLQQTLKTVSVQK  
DLIDANLTVA RD DLHGIQRGDIDS VVIGAKSMVREANGITSEVLDGLNPIQTDLGRIK  
DSYESARREDFSKALVDANNSVKKLTRKLPDLFIKIESINQQLLPLGNISDNVDRIRE  
LIQQARDAANKVGIPPIWL"

CSPLPKTQANHGALQFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMAL  
YLSKGRLVFALGTDGKKLRIKSKECNDGKWHTVVFGHDGEKGRLVVDGLRAREGSLPGNSTIS  
IRAPVYLGSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEG  
GHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASMDSGAGGTSTS  
VTPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQEPLHLGGAPANLTLRI  
PVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

**FIG. 3A**

t gctcaccact tcccaagacc caggccaatc atggagccct ccagttggg  
gacattccca ccagccactt gctattcaag cttcctcagg agctgctgaa  
acccagggtca cagtttgctg tggacatgca gacaacatcc tccagaggac  
tgggtttca cacgggcact aagaactcct ttatggctct ttatcttca  
aaaggacgtc tggtcttgc actggggaca gatggaaaaa aattgaggat  
caaaagcaag gagaatgca atgatggaa atggcacacg gtgggtttg  
gccatgatgg gaaaaagggg cgcttggtt gggatggact gagggcccg  
gagggaaagtt tgccctggaaa ctccaccatc agcatcagag cgccagttt  
cctggatca cctccatcag gaaacccaaa gagcctcccc acaaacagct  
ttgtggatg cctgaagaac tttcagctgg attcaaaacc cttgtatacc  
ccttcttcaa gcttcggggt gtcttcctgc ttgggtggtc ctttggagaa  
aggcatttat ttctctgaag aaggaggta tgcgtcttg gtcactctg  
tattgttggg gccagaattt aagcttggtt tcagcatccg cccaaagaatg  
ctcaactggga tcctaataca catcggaaat cagccccggg agcaacttatg  
tgtttacctg gaggcaggaa aggtcacggc ctctatggac agtggggcag  
gtgggacctc aacgtcggtc acacccaaagc agtctctgtg tgatggacag  
tggcaactcg tggcagtcac cataaaacaa cacatcctgc acctggaaact  
ggacacagac agtagctaca cagctggaca gatccccctc ccacctgcca  
gcactcaaga gccactacac ctggaggtg ctccagccaa tttgacgaca  
ctgaggatcc ctgtgtggaa atcattctt ggctgtctga ggaatattca  
tgtcaatcac atccctgtcc ctgtcaactga agccttggaa gtccaggggc  
ctgtcagtct gaatgggtgt cctgaccagt aacccaagcc tatttcacag  
caaggaaatt caccccaaagcactgatt acccaatgca cctccctccc  
cagctcgaga tcattctca attaggacac aaaccagaca ggttaatag  
cgaatctaattt tttgaattct gaccatggat acccatcaact ttggcattca  
gtgctacatg tgtatattat ataaaaatcc catttcttga agataaaaaa  
attgttatttca aaattgttat gcacagaatg ttttggtaa tattaatttc  
cactaaaaaa ttaaatgtct

**FIG. 3B**

CLGGPLEKGIYFSEEGGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAG  
KVTASMDSGAGGTSTS VTPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQE  
PLHLGGAPANLTLRIPVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

**FIG. 3C**

tgc ttgggtggc cttggagaa aggcatat ttctctgaag aaggaggta  
tgtcgtctg gctcaactctg tattgttggg gccagaattt aagcttgttt  
tcagcatccg cccaagaagt ctcactggg tcctaataca catcgaaagt  
cagcccgaaa agcacttatg tgtttacctg gaggcaggaa aggtcacggc  
ctctatggac agtggggcag gtggacaccc aacgtcggc acaccaaagc  
agtctctgtg ttagtggacag tggcaactcg tggcagtcac cataaaacaa  
cacatcctgc acctgaaact ggacacagac agtagctaca cagctggaca  
gatccccttc ccacctgcca gcactcaaga gccactacac cttggaggtg  
ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa atcattctt  
ggctgtctga ggaatattca tgtcaatcac atccctgtcc ctgtcactga  
agccttggaa gtccaggggc ctgtcagtct gaatggttgt cctgaccagt  
aaccgaagcc tatttcacag caaggaaatt caccccaaaa agcactgatt  
acccaatgca cctccctccc cagctcgaga tcattctca attaggacac  
aaaccagaca ggttaatag cgaatctaattt gaccatggat  
acccatcaacttggcattca gtgctacatg tgtatatttataaaaaatcc  
catttcttga agataaaaaaa attgttattc aaattgttat gcacagaatg  
ttttggtaa tattaatttc cactaaaaaa ttaaatgtct

**FIG. 3D**

PLPKTQANHGA

**FIG. 3E**

cact tcccaagacc caggccaaatc atggagc

**FIG. 3F**

SHLLFKLPQELLKPRS

**FIG. 3G**

gccactt gctattcaag cttcctcagg agctgctgaa acccaggtca

**FIG. 3H**

TSSRGLVFHTGKNSFMALYLSKGRLVFALGKDKLRIKSKEKNDGKWHVVFGHDGEKGRL  
VVDGLRAREGSLPGNSTISIRAPVYLGSPSGKPSSLPTNSFVGCLKNFQLDSKPLYTPSSSFG  
VSS

**FIG. 3I**

gacaacatcc tccagaggac tgggtttca cacgggact aagaactcct  
ttatggctct ttatcttca aaaggacgtc tggctttgc actggggaca  
gatggaaaaa aattgaggat caaaagcaag gagaaatgca atgatggaa  
atggcacacg gtgggtttg gccatgatgg ggaaaagggg cgcttggttg  
tggatggact gagggcccg gaggaaagtt tgcctggaaa ctccaccatc  
agcatcagag cgccagttt cctggatca cctccatcag ggaaacccaa  
gagcctcccc acaaacagct ttgtggatg cctgaagaac tttcagctgg  
attcaaaacc cttgtatacc cttcttcaa gcttcgggt gtcttc

**FIG. 3J**

TSSRGLVFHTGKNSFMALYLSKGRNVFALGTDGKKLRIKSKEKNDGKWHHTVVFHGDGEKGRL  
VVDGLRAREGSLPGNSTISIRAPVYLGSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFG  
VSSCLGGPLEKGIYFSEEGHVVLASHVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYL  
EAGKVTASMDSGAGGTSTSVPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPAS  
TQEPLHLGGAPANLTTLRIPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ

**FIG. 3K**

catcc tccagaggac tgggtttca cacgggact aagaactcct ttatggctct  
ttatcttca aaaggacgtc tggctttgc actggggaca gatggaaaaa  
aattgaggat caaaagcaag gagaaatgca atgatggaa atggcacacg  
gtgggtttg gccatgatgg ggaaaagggg cgcttggttg tggatggact  
gagggcccg gaggaaagtt tgcctggaaa ctccaccatc agcatcagag  
cgccagttt cctggatca cctccatcag ggaaacccaa gagcctcccc  
acaaacagct ttgtggatg cctgaagaac tttcagctgg attcaaaacc  
cttgtatacc cttcttcaa gcttcgggt gtcttcctgc ttgggtggc  
cttggagaa aggcatttat ttctctgaag aaggaggtca tgtcgtctg  
gctcaactctg tattgttggg gccagaattt aagcttggaa tcagcatccg  
cccaagaagt ctcactgggta tcctaataca catcggaaat cagcccgaa  
agcaattatg tggtaatctg gaggcaggaa aggtcacggc ctctatggac  
agtggggcag gtgggacctc aacgtcggtc acaccaaagc agtctctgt  
tgatggacag tggcactcgg tggcagtcac cataaaacaa cacatcctgc  
acctggaaact ggacacagac agtagctaca cagctggaca gatccccctc  
ccacactgcca gcactcaaga gccactacac cttggaggtg ctccagccaa  
tttgacgaca ctgaggatcc ctgtgtggaa atcattctt ggctgtctga  
ggaatattca tgtcaatcac atccctgtcc ctgtcactga agccttggaa  
gtccaggggc ctgtcagtct gaatgggtgt

**FIG. 3L**

FKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASMDSGAGGTSTSVPKQSLCDGQWHS  
VAVTIKQHILHLELDTDSSYTAGQIPFPPASTTQEPLHLGGAPANLTTLRIPVWKSFFGCLRNIH  
VNHIPVPVTEALEVQGPVSLNGCPDQ

**FIG. 3M**

tt aagcttgttt tcagcatccg cccaagaagt ctcactggga tcctaata  
catcggaaagt cagccccggga agcacttatg tgtttacctg gaggcaggaa  
aggtcacggc ctctatggac agtggggcag gtgggacctc aacgtcggtc  
acaccaaagc agtctctgtg tcatggacag tggcactcgg tggcagtac  
cataaaacaa cacatcctgc acctggaact ggacacagac agtagctaca  
cagctggaca gatcccccttc ccacactgcca gcactcaaga gccactacac  
cttggaggtg ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa  
atcattctt ggctgtctga ggaatattca tgtcaatcac atccctgtcc  
ctgtcactga agccttggaa gtccaggggc ctgtcagtct gaatggttgt  
cctgaccagt

FIG. 3N

**FIG. 4**

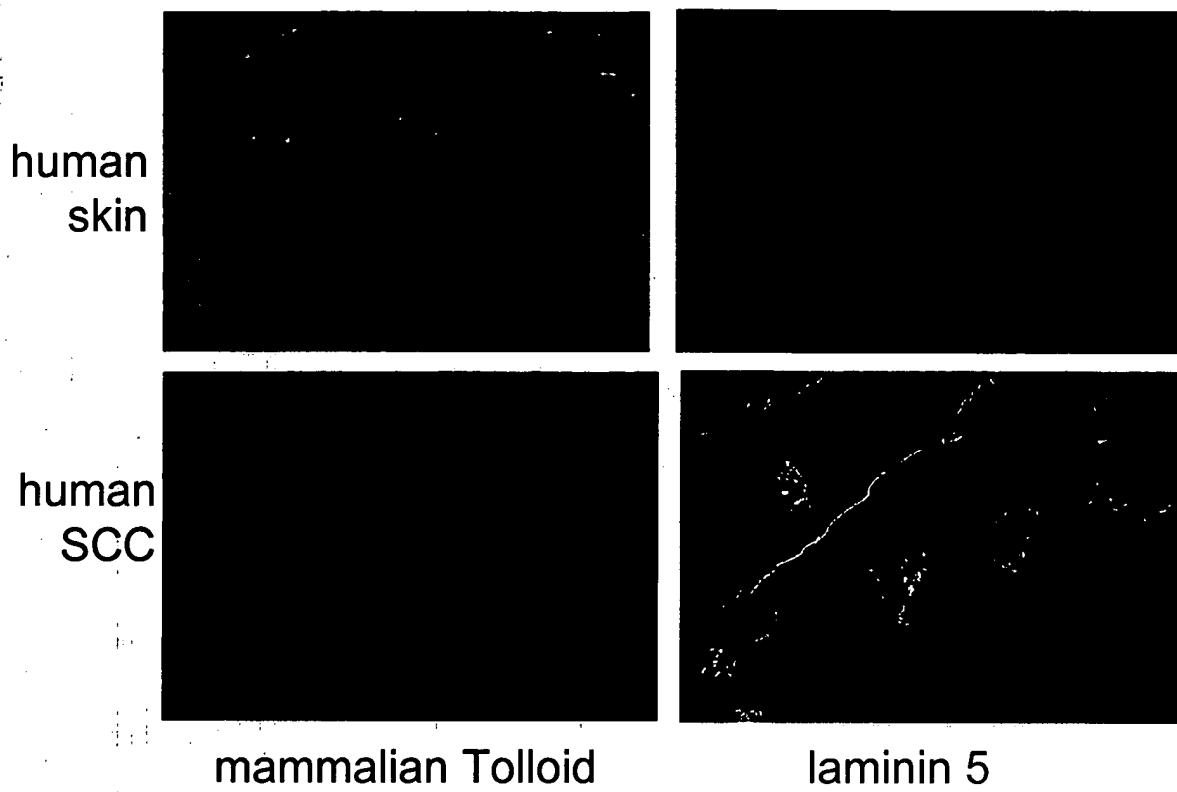
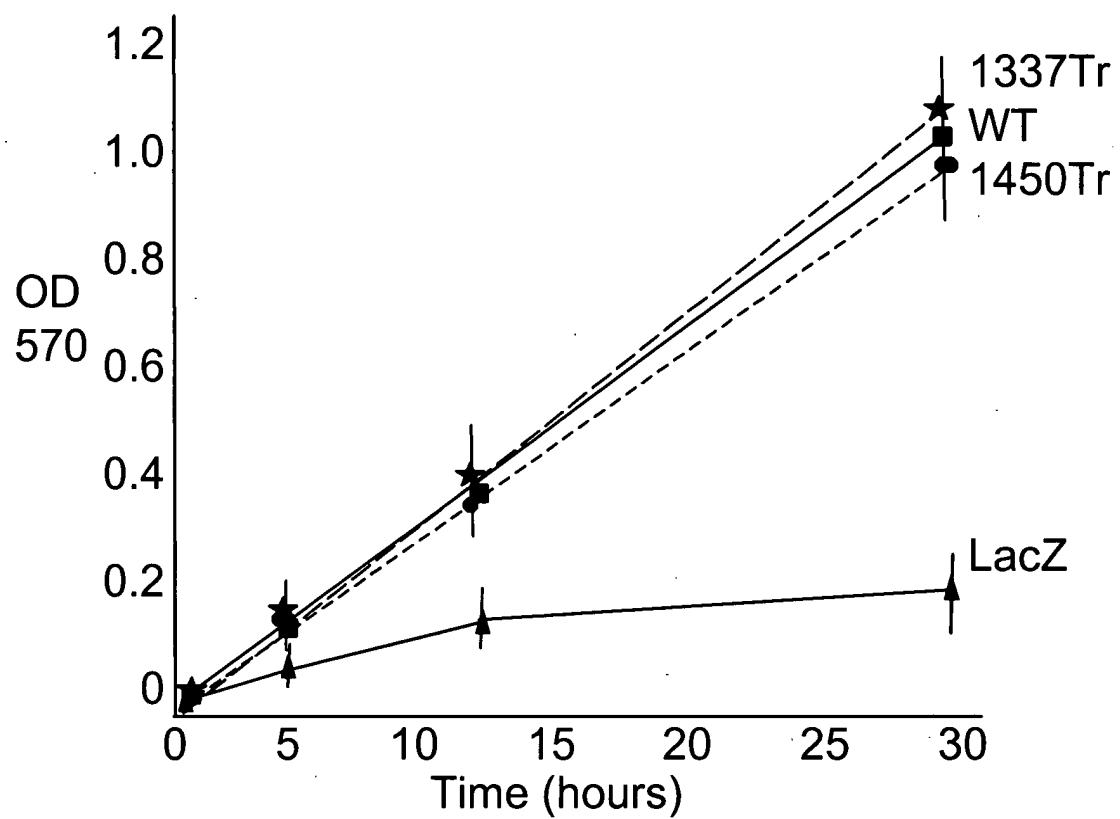


FIG. 5



**FIG. 6**

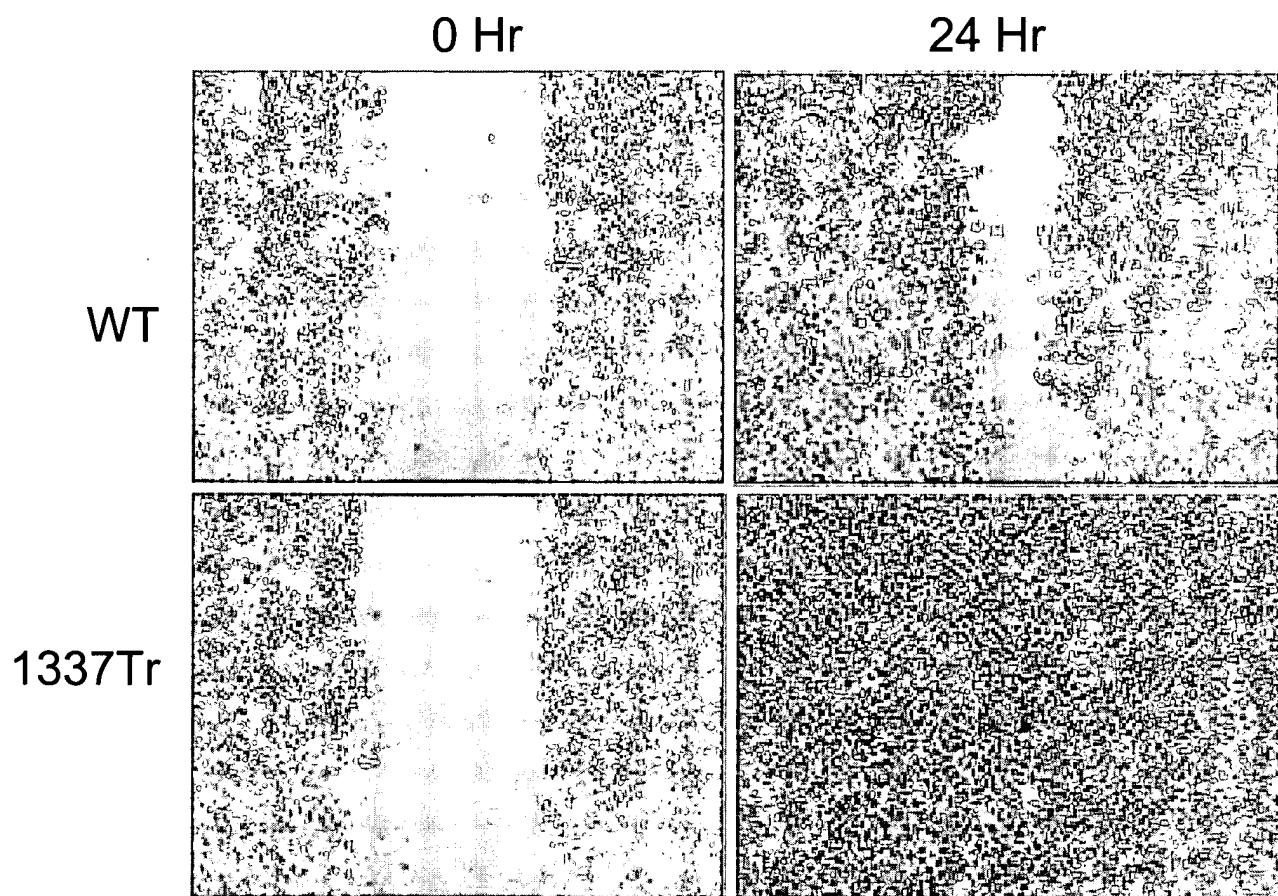


FIG. 7

